



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

243. *Campylorhynchus affinis* Xantus. Pair. La Paz.
 244. *Campylorhynchus zonatus* (Less.) Pair. Rinconada, Mex.
 245. *Campylorhynchus capistratus* (Less.) Pair. Naranjo, Guat.
 246. *Campylorhynchus rufinucha* (Lafr.) Pair. Rinconada, Mex.
 247. *Cyphorhinus lawrencei* Lawr. 1 male. San Juan Valley, Costa Rica.
 248. *Heterorhina leucosticta* (Cab.) 1 male. San Juan Valley, Costa Rica.
 249. *Heterorhina pusilla* Scl. 1 female. Rinconada, Mex.
 250. *Thryophilus costaricensis* Sharpe. 1 male. San Juan Valley, Costa Rica.
 251. *Thryophilus pleurostictus* Scl. 1 male. Granada, Nic.
 252. *Tryothorus maculispactus* Lafr. 1 male. Naranjo, Guat.
 253. *Auriparus flaviceps* (Sund.) 1 male, 2 females. Florido and Altata.
 254. *Turdus assimilis* Cab. 1 female. Coatepec, Mex.
 255. *Merula tristis* Swain. 1 male. Santa Tomas, Guat.
 256. *Merula grayi* Bonap. 2 males, 1 female. Naranjo, Guat., Coatepec, Mex., Granada, Nic.
-

A REVIEW OF KANSAS ORNITHOLOGY.

BY D. E. LANTZ, MANHATTAN, KAN.

Read before the Academy October 28, 1897.

I. The Bibliography of Kansas Birds.

The following list of publications embraces books and articles containing references to birds found in the state and ornithological articles written by Kansas authors. But few references to fossil forms are included. I have been unable to find complete files of *Forest and Stream*; hence there are probably some omissions of articles from that journal. A number of amateur ornithological publications have not been examined for Kansas materials. With these exceptions, I believe that the list is nearly complete.

The order of arrangement is chronological, showing the gradual development of our knowledge of Kansas birds. Implied references and common names which do not clearly identify the species are not considered as additions to the avifauna of the state.

It is to be regretted that so many of the early explorers of our western country touched only on the eastern border of the state, and gave so meager an account of our birds. Nebraska and Missouri were much more fortunate in this respect, since the Missouri and the Platte rivers became a sort of highway for exploring expeditions and travelers.

The work of compiling the bibliographical references was made more difficult because of the scarcity of materials in our various Kansas libraries to which I might refer. The libraries of the Academy of Science, the State Historical Society, the Agricultural College and the State Library were freely consulted, and I had advice and assistance from Dr. Elliott Coues, of Washington, D. C., and Dr. J. A. Allen, of New York.

1810. PIKE, MAJOR Z. M. An Account of an Expedition to the Sources of the Mississippi and through the western parts of Louisiana, to the Sources of the Arkansas, Kansas, La Platte and Pierre Jaune rivers; performed by order of the government of the United States during the years 1805, 1806, and 1807. And a tour through the interior parts of New Spain, when conducted through these provinces by order of the captain-general, in the year 1807. By Major Z. M.

Pike. Illustrated by maps and charts. Philadelphia: Published by C. & A. Conrad & Co., No. 30 Chestnut street; Somervell & Conrad, Petersburg; Bon-sal, Conrad & Co., Norfolk, and Fielding Lucas, jr., Baltimore. John Binns, printer, 1810. One vol., 8vo. Standard edition, 4to, London, 1811. French edition, 2 vols., 8vo, Paris, 1812.

Pike entered Kansas in 1806. No ornithological records of his trip were made, except that his hunters brought in turkeys taken in different parts of the state. This is the first published mention I could find of *Meleagris gallopavo* for Kansas.

1814. LEWIS, M., AND CLARKE, W. History of the Expedition under command of Captains Lewis and Clarke to the Sources of the Missouri, thence across the Rocky mountains and down the river Columbia to the Pacific ocean. Performed during the years 1804-5-6. By order of the government of the United States. Prepared for the press by Paul Allen, Esquire. In two volumes. Vol. I [II.] Philadelphia: Published by Bradford and Inskeep; and Abm. H. Inskeep, New York. J. Maxwell, printer. 1814. Two vols., 8vo. Vol. I, pp. i-xxviii, 1-470. Maps. Vol. II, pp. i-ix, 1-522. Maps. From vol. II, chapter 7, "A general description of the beasts, birds, plants, etc., found by the party on this expedition," pp. 148-201.

Doctor Coues says that this is the first edition of the authentic narrative. A quarto edition in one volume appeared in London in 1814, and a three-volume edition in 1815. A Dutch edition in three 8vo volumes appeared in Dordrecht in 1816, and a Dublin edition in two volumes in 1817.

The party touched Kansas only on the voyage up the Missouri river. The wild turkey and whippoorwill are mentioned as found in Kansas. *Antrostomus vociferus* first recorded. Goslings are mentioned as occurring on the Missouri river near the point where St. Joseph is now located. Probably the young of the Canada goose.

1823. SAY, THOMAS. Account of an Expedition from Pittsburg to the Rocky Mountains, performed in the years 1819 and '20, by order of the Hon. J. C. Calhoun, secretary of war: under the command of Maj. Stephen H. Long. From the notes of Major Long, Mr. T. Say, and other gentlemen of the exploring party. Compiled by Edwin James, botanist and geologist for the expedition. In two volumes, with an atlas. Vol. I. [II]. Philadelphia: H. C. Carey and I. Lea, Chestnut street, 1823. 2 vols., 8vo. Vol. I, 2 p. ii, pp. 1-503. Vol. II, 3 p. ii, pp. 1-442, i-xcviii.

Going westward the main party ascended the Missouri river. A detachment under T. Say ascended the Kansas river as far as the mouth of the Blue and then proceeded in a northeastern direction to join the main expedition on the Missouri. On the return trip a party accompanied by Mr. Say descended the entire course of the Arkansas river in this state.

Notes and descriptions of new species by Thomas Say are scattered throughout the work in the form of foot-notes. A list of the birds seen during the expedition, but without localities, is given, pp. 370-375 of volume I. In the text occur the first notices of the following species as belonging to Kansas:

Corvus corax sinuatus ("Warreruza creek"), *Molothrus ater*, *Haliaeetus leucocephalus*, *Speotyto cunicularia hypogaea*, *Tympanuchus americanus*, *Colinus virginianus*, *Ceryle alcyon*, and *Corvus americanus*. *Dolichonyx oryzivorus* is also given as seen in great numbers on the Arkansas river August 11. This is probably an error. The bobolink is a very rare summer resident in northern Kansas and the date is too early for the fall migrants. The bird seen was the

lark bunting, *Calamospiza melanocorys*, which at a distance from the observer greatly resembles the bobolink.

1839. TOWNSEND, J. K. Narrative of a Journey across the Rocky Mountains to the Columbia River and a visit to the Sandwich Islands, Chili, etc., with a scientific appendix. By John K. Townsend, member of the Academy of Natural Sciences of Philadelphia. Philadelphia: Henry Perkins, 134 Chestnut street. Boston: Perkins & Marvin—1839. 8vo, pp. i-viii, 1-352. Contains Appendix: Catalogue of the birds found in the territory of the Oregon, pp. 331-352.

The author was accompanied on this trip by Mr. Thomas Nuttall. The references to Kansas species are incidental and no additions to the list are made.

1839. MAXIMILIAN PRINZ ZU WIED. Reise in Das Innere Nord-America in den Jahren 1832 bis 1834. Von Maximilian Prinz zu Wied. Mit 48 Kupfern, 33 Vignetten, veilen Holzschnitten, und einer Charte. Erster Band. [Zweiter Band]. Coblenz, 1839 [1841] Bei J. Hoelscher. 2 vols., 4to. Vol. I, 1839, pp. v-xvi, 1-654. Vol. II, 1841, pp. i-xxiv, 1-688. Separate atlas of folio plates, and one map.

A sumptuous and valuable work, of which only three or four copies are known in America. One of these is in the library of our State Historical Society. A French edition is more common. The author's journey was by way of the Missouri river, both in going westward and returning. The work is rich in observations on the minerals, plants, animals, and Indians of the country. Nebraska and Missouri are each favored with a larger list of birds seen than is our state. New records for Kansas are: *Fulica americana*, *Branta canadensis* (breeding, see Lewis and Clarke, 1814), *Aix sponsa*, *Cathartes aura*, *Circus hudsonius*, *Aquila chrysaetus*, *Xanthocephalus xanthocephalus*, *Spinus tristis*, *Passerina cyanea*, *Cardinalis cardinalis*, *Vireo olivaceus*, and *Sylvania mitrata*.

1840. NUTTALL, T. A Manual of the Ornithology of the United States and of Canada. By Thomas Nuttall, A. M., F. L. S., etc. Second edition, with additions. [Vol. I.] The Land Birds. Boston: Hilliard, Gray & Co. MDCCCXL. [Vol. II.] The Water Birds. [Same imprint and date.] 2 vols., 12mo, pp. —, —, wood cuts.

The citation is from Doctor Coues's Bibliography. I have not handled this edition. It contains the additions to the North American list discovered by Mr. Townsend and Mr. Nuttall in their journey together across the continent.

1840-44. AUDUBON, J. J. The Birds of America, from drawings made in the United States and their territories. By John James Audubon, F. R. S. S. L. & E. [etc.] Vol. I[-VII]. New York: Published by J. J. Audubon. Philadelphia: J. B. Chevalier. 1840[-44]. 7 vols., large 8vo, pp. —, 500 plates.

The appendix to the last volume contains the additions to his former work, of birds noticed in the West by Townsend, Nuttall, Baird, and Audubon. There is implied, but no direct mention of species as found in the territory now included in Kansas.

1844. GREGG, JOSIAH. Commerce of the Prairies, or the Journal of a Santa Fe Trader during eight expeditions across the great western prairies, and a residence of nearly nine years in northern Mexico. Illustrated with maps and engravings. By Josiah Gregg. In two volumes. Vol. I [II]. New York: J. & H. G. Langley, 8 Astor House, 1844. 2 vols., 12mo, pp. —.

Adds to our bird fauna *Grus americana* and *Grus mexicana*.

1845. FREMONT, JOHN C. Report of the Exploring Expedition to the Rocky Mountains in the year 1842 and to Oregon and north California in the years 1843-4. By Brev. Capt. J. C. Fremont, of the topographical engineers, under

the orders of Col. J. J. Abert, chief of the topographical bureau. Printed by order of the House of Representatives. Washington: Blair & Rives, printers. 1845. 8vo, pp. 586.

Other editions occur. Fremont twice traversed the northern part of the state from east to west. The only note of interest in this connection is his statement in the narrative that on June 17 he saw on the Kaw river, near its mouth, a large number of bank swallows nesting, and that a snake was killed which had eaten eighteen of the young birds. The identity of the species as *Clivicola riparia* is unmistakable, since the rough-winged swallow does not breed in large colonies.

1848. ABERT, J. W. Notes on a Military Reconnoissance from Fort Leavenworth, in Missouri, to San Diego, in California. By W. H. Emory. Washington: Wendell and Benthuyssen, printers. 1848. One vol., 8vo. From appendix No. 6. Notes of Lieut. J. W. Abert, pp. 386-405.

A diary of the journey, with special references to the animals and plants observed. This party traversed the state from east to west in 1846, going by way of the "Santa Fe Trail." Lieutenant Abert added to the Kansas list: *Anas carolinensis*, *Recurvirostra americana*, *Numenius longirostris*, *Charadrius dominicus*, *Ægialitis vocifera*, *Zenaidura macroura*, *Elanoides forficatus*, *Buteo borealis*, *Conurus carolinensis*, *Melanerpes erythrocephalus*, *Colaptes auratus*, *Chordeiles virginianus*, *Tyrannus tyrannus*, *Cyanocitta cristata*, *Sturnella magna*, *Sturnella magna neglecta*, *Icterus galbula*, *Quiscalus quisqualis æneus*, *Pipilo erythrophthalmus*, *Tachycineta bicolor*, *Mimus polyglottis*, *Galeoscoptes carolinensis*, *Harporhynchus rufus*, *Merula migratoria*, *Sialia sialis*, and a "gray bird," of which he gives us a ready means of identification, as *Sayornis phoebe*, in his description of its nest.

1849. PARKMAN, FRANCIS, JR. The California and Oregon Trail, being sketches of prairie and mountain life, by F. Parkman, jr. 8vo., pp. 448. New York, 1849.

Original edition not handled. In the narrative of that part of the journey which took place in Kansas there is mention of the following birds: Quail, whippoorwill, raven, crow, eagle (?), prairie grouse, robin, Baltimore oriole, blue jay, cardinal, blackbird, and a careful statement of the occurrence of the black buzzard, *Catharista atrata*, observed in company with the turkey buzzard.

1851. KELLEY, WM. An Excursion to California over the Prairie, Rocky Mountains, and Great Sierra Nevada, with a stroll through the diggings and ranches of that country. By William Kelley, J. P. Vol. I [II]. London: Chapman & Hall. 1851. Two vols., 12mo, pp. —.

A journey across Kansas by way of the Kansas river route. A close observer mentions turkeys, ducks (species not given), prairie-hens, paroquets, and an upland snipe which may readily be recognized from the description as *Bartramia longicauda*.

1851. HARRIS, EDWARD. List of Birds and Mammalia found on the Missouri river from Fort Leavenworth to Fort Union at the mouth of the Yellowstone river. From Fifth Annual Report of the Smithsonian Institution for 1850. Washington, 1851. pp. 136-138.

A list of 120 species, of which 24, marked with an asterisk, were observed on the lower part of the river. No definite localities are given, but it is probable that some of these were seen in Kansas. The paroquet was seen above Fort Leavenworth.

1852. BAIRD, S. F. Special session, March, 1851. Senate, Ex. No. 3. Exploration and Survey of the Valley of the Great Salt Lake of Utah, including a

reconnoissance of a new route through the Rocky mountains. By Howard Stansbury, captain corps topographical engineers U. S. army. Printed by order of the Senate of the United States. Philadelphia: Lippincott, Grambo & Co., 1852. 1 vol. 8vo, pp. 487, pll. Contains Appendix C. Birds. By Spencer F. Baird. pp. 314-335. Route through Kansas. Birds casually mentioned in the narrative, but no new ones for the state.

1858. BAIRD, S. F., CASSIN, J., AND LAWRENCE, G. N. 33d Congress, 2d session, House of Representatives, Ex. Doc. No. 91. Reports of Explorations and Surveys to ascertain the most practicable and economic route for a railroad from the Mississippi river to the Pacific ocean, made under the direction of the secretary of war in 1853-6, according to acts of congress of March 3, 1853, May 31, 1854, and August 5, 1854. Vol. IX. Washington: A. O. P. Nicholson, printer. 1858. 4to, subtitled as follows: Explorations and surveys for a railroad route from the Mississippi river to the Pacific ocean. War department. Birds: by Spencer F. Baird, assistant secretary Smithsonian Institution, with the coöperation of John Cassin and Geo. N. Lawrence. Washington, D. C. 1858. pp. i-lvi, 1-1005.

This work is part II of the general report upon the zoölogy of the "Pacific Railroad Routes." (Part I, Mammals, is volume 8 of the series; and parts III and IV, Reptiles and Fishes, are found in volume 10 of the series.)

The authors give a careful review with excellent descriptions of all the species of American birds found north of Mexico which had been recognized up to the date of the report. There are specific references to seventy species found in Kansas by the exploring parties sent out by the government and the Smithsonian Institution. As Kansas then extended westward to the summit of the Rocky mountains and there are numerous errors of record in the tables of this report, it requires great care to determine whether the specimens are really of Kansas origin. The itinerary of each exploring party must be carefully studied, with the maps of that time and of the present for comparison. The government exploring parties which entered Kansas previous to 1858 are as follows:

1804. Lewis and Clarke. Up the Missouri river.

1806. Lieutenant Pike. Entered the state from the east by way of the Osage river. From the Osage village northwest to the Pawnee village on the Republican in Nebraska. Thence south to the Arkansas. Up the Arkansas to Colorado.

1819-20. Major Long. (Route already given.)

1826. Surg. J. C. Brown. Explored the route known later as the Santa Fe trail.

1842-3. Captain Fremont. (Route already mentioned.)

1843. Captain Boone. North from the Cimarron to the Santa Fe trail.

1846. Lieutenant Emory. From Fort Leavenworth south to the Santa Fe trail; then west by the "trail."

1849. Captain Stansbury. From Fort Leavenworth northwest to the Platte.

1851. Captain Pope. East across the state by way of the Smoky Hill and Kansas rivers.

1852. Lieutenant Woodruff. Examined the streams of the state. Map and report were never published.

1853. Captain Gunnison. Westward from the mouth of the Kansas river by way of the Santa Fe trail. A detachment went by way of Fort Riley, and thence south to join the main party.

1855. Lieutenant Ryan. Reconnoissance from Fort Leavenworth to Big Timbers, on the Arkansas.

1855. Major Merrill.

1856. Lieutenant Bryan. Up the Kansas and Republican to Nebraska, and down the Republican and Solomon on the return trip.

The sources from which Kansas specimens were obtained for elaboration in Baird's report were: Captain Gunnison's party, Doctor Kreuzfeldt as naturalist; Lieutenant Warren's party, Dr. F. V. Hayden as naturalist; Lieutenant Bryan's party, W. S. Wood as naturalist; and W. M. F. Magraw's party, Dr. J. G. Cooper as naturalist. Also collections made by Lieut. D. N. Couch at Fort Leavenworth, 1854-'55, and by Dr. W. A. Hammond and Mr. John X. de Vesey at Fort Riley and on the Republican river.

The species added to our list by Baird are: *Anas boschas*, *Ardea egretta*, *Ardea virescens*, *Totanus solitarius*, *Coccyzus americanus*, *Dryobates villosus*, *Dryobates pubescens medianus*, *Ceophloeus pileatus*, *Melanerpes carolinensis*, *Trochilus colubris*, *Otocoris alpestris pratincta*, *Agelaius phœniceus*, *Icterus spurius*, *Scolecophagus cyanocephalus*, *Calcarius lapponicus*, *Ammodramus sandwichensis savanna*, *Ammodramus savannarum passerina*, *Ammodramus henslowi*, *Chondestes grammacus*,* *Zonotrichia querula*, *Zonotrichia leucophrys*, *Spizella monticola*, *Spizella pusilla*, *Junco hyemalis*, *Junco hyemalis oregonus*, *Melospiza lincolni*, *Spiza americana*, *Progne subis*, *Stelgidopteryx serripennis*, *Ampelis garrulus*, *Vireo bellii*, *Dendroica æstiva*, *Dendroica coronata*, *Geothlypis formosa*, *Icteria virens*, *Setophaga ruticilla*, *Thryothorus ludovicianus*, *Sitta carolinensis*, *Parus bicolor*, *Parus atricapillus septentrionalis*, *Polioptila cærulea*, *Turdus ustulatus swainsonii*.

1863. HAYDEN, F. V. On the Geology and Natural History of the Upper Missouri. From Transactions of the American Philosophical Society. Vol. XII. New series. Philadelphia, 1863. Part III. Zoology and Botany. Mammals, pp. 138-151. Birds, pp. 151-176.

Some Kansas references of both mammals and birds.

[1864-66.] BAIRD, S. F. Smithsonian Miscellaneous Collections. 181. Review of American Birds in the Museum of the Smithsonian Institution. By S. F. Baird. Part I. North and Middle America. [Medallion.] Washington: Smithsonian Institution. [No date on title page: June, 1864, to June, 1866. Issued in sheets and dated by parts as printed.] One vol., 8vo, pp. i-iv, 1-450.

Treats of the families from the Turdidæ to the Laniidæ of the Smithsonian check list then in use. A valuable work, discontinued to allow the author to take up the work on his History of the Birds of North America in collaboration with Doctor Brewer and R. Ridgway. It contains a number of references to Kansas species.

1865. HOY, DR. P. R. Journal of an Exploration of Western Missouri, in 1854, under the auspices of the Smithsonian Institution. By P. R. Hoy, M. D. From Smithsonian report for 1864, pp. 431-438.

Contains mention of five species observed in Kansas near the Missouri line: mockingbird, Bell's vireo, wild turkey, whooping crane, and the first positive record of the lark bunting, *Calamospiza melanocorys*, remarkable for being so far east of the present range of the species.

1865. COUES, DR. ELLIOTT. Ornithology of a Prairie Journey, and Notes on the Birds of Arizona. From Ibis, 1865, second series, vol. I, pp. 157-165.

Gives a record of about twenty species observed in Kansas in 1864. The earliest record of *Larus franklinii*, *Phalaropus tricolor*, *Tringa fuscicollis*, *Ereunetes*

* Edwin James, in the London edition of Major Long's report, 1823, intimates that the lark finch, *Chondestes grammacus*, was seen along the Missouri river below the mouth of the Ne-maha, but the statement is not positive as to Kansas.

pusillus, *Phalænoptilus nuttalli*, *Chordeiles virginianus henryi*, and *Spizella pallida*.

1866. BAIRD, S. F. The Distribution and Migration of North American Birds. From *Am. Journal of Science*, vol. 41, 1866, pp. 78-90, 184-192, 337-347.

A carefully written paper, quoted in this connection because of its bearing on the general subject of the geographical relations of our fauna.

1871. COUES, ELLIOTT, M. D. The Yellow-headed Blackbird. From *American Naturalist*, vol. V, June 1871, p. 91.

Extracts from the author's diary for a part of May, 1864, during the journey through Kansas. Twenty-three species of birds, not mentioned in the article in *The Ibis*, 1865, already quoted, are here given. First record for *Tringa maculata*, *Myiarchus crinitus*, *Contopus vireus*, *Piranga erythromelas*, *Vireo gilvus*, *Vireo noveboracensis*, *Seiurus aurocapillus*. The slender-billed nuthatch is also named as occurring near Fort Riley, but this is evidently an error of identity.

1872. SNOW, F. H. A Catalogue of the Birds of Kansas. From *Kansas Educational Journal* (newspaper) for April, 1872, vol. 8, pp. 376-383.

A defective list of 239 species, some contributed by Dr. T. M. Brewer; breeders marked by an asterisk. This was the list criticized by Doctor Allen and defended by Mr. Brewer in the *American Naturalist*, vol. 6, pp. 359, 482. This discussion resulted in the addition of many species to the list and the issue of a new and corrected edition of the catalogue.

In this first edition, Professor Snow made the first published record for the state of the following species: *Colymbus auritus*, *Podilymbus podiceps*, *Urinator imber*, *Sterna forsteri*, *Sterna antillarum*, *Hydrochelidon nigra surinamensis*, *Phalacrocorax dilophus*, *Phalacrocorax mexicanus* (given as *P. d. floridanus*), *Pelecanus erythrorhynchus*, *Merganser americanus*, *Lophodytes cucullatus*, *Anas strepera*, *Anas americana*, *Anas discors*, *Spatula clypeata*, *Dafila acuta*, *Aythya americana*, *Aythya vallisneria*, *Aythya marila nearctica*, *Aythya affinis*, *Aythya collaris*, *Glaucionetta clangula americana*, *Charitonetta albeola*, *Erisimatura rubida*, *Chen hyperborea*, *Anser albifrons gambeli*, *Branta bernicla*, *Olor columbianus*, **Olor buccinator*, *Botaurus lentiginosus*, *Ardetta*, *Botaurus exilis*, *Ardea herodias*, *Nycticorax nycticorax nævius*, *Ralluselegans*, *Rallus virginianus*, *Porzana carolina*, *Philohelaminor*, *Gallinago delicata*, **Macrorhamphusscolopaceus*, *Tringa canutus*, *Tringa minutilla*, *Limosa fedoa*, *Totanus melanoleucus*, *Totanus flavipes*, **Symphemia semipalmata inornata*, *Tringites subruficollis*, *Actites macularia*, *Ægialitis semipalmata*, *Bonasa umbellus*, *Ectopistes migratorius*, *Accipiter velox*, *Accipiter cooperi*, *Accipiter atricapillus*, *Buteo borealis calurus*, *Buteo borealis harlani*, *Buteo lineatus*, *Buteo swainsoni*, *Buteo latissimus*, *Archibuteo lagopus sanctijohannis*, *Falco mexicanus*, *Falco peregrinus anatum*, *Falco columbarius*, *Falco sparverius*, *Pandion heliæetus carolinensis*, *Strix pratincta*, *Asio wilsonianus*, *Asio accipitrinus*, *Syrnium nebulosum*, *Nyctala acadica*, *Megascops asio*, *Bubo virginianus*, *Nyctea nyctea*, *Coccyzus erythrophthalmus*, **Sphyrapicus varius*, *Chætura pelagica*, **Tyrannus verticalis*, **Contopus borealis*, *Empidonax pusillus traillii*, *Empidonax minimus*, *Pica pica hudsonica*, *Icterus bullocki*, *Scolecophagus carolinus*, **Pinicola enucleator*, **Carpodacus purpureus*, **Loxia curvirostra minor*, **Loxia leucoptera*, **Spinus pinus*, *Plectrophenax nivalis*, *Poœcetes gramineus*, *Zonotrichia albicollis*, *Spizella socialis*, *Melospiza fasciata*, *Melospiza georgiana*, *Passerella iliaca*, *Passerella iliaca schistacea*, *Habia ludoviciana*, *Passerina amoena*, *Petrochelidon lunifrons*, **Chelidon erythrogaster*, *Ampelis cedrorum*, *Lanius borealis*, *Lanius ludovicianus*, *Lanius ludovicianus excubitorides*, *Vireo flavifrons*, *Mniotilta varia*, **Pronotaria*

citrea, * *Helminthophila celata*, * *Helminthophila peregrina*, * *Dendroica pennsylvanica*, *Dendroica dominica albilora*, *Seiurus motacilla*, *Geothlypis trichas occidentalis*, * *Sylvania pusilla*, *Anthus pennsylvanicus*, *Thryothorus bewickii*, *Troglodytes aedon aztecus*, *Cistothorus stellaris*, *Cistothorus palustris*, *Certhia familiaris americana*, *Parus atricapillus*, * *Regulus satrapa*, *Regulus calendula*, *Turdus mustelinus*, and * *Turdus fuscescens*.

Nineteen of the above, marked with an asterisk, were given on the authority of Dr. T. M. Brewer. Several others reported on the list now under discussion were omitted from his latest list as evident errors and so are not here reported.

1872. ALLEN, J. A. Ornithological Notes from the West. From *Am. Naturalist*, vol. VI, 1872, pp. 263-275, 342-351, 394-404.

This is a summary of a paper which appeared in *Bull. Mus. Comp. Zoölogy*, vol. III, pp. 118-183. The first part, pp. 263-275, of the May number of the *Am. Naturalist*, refers to Kansas. Nearly all the species included in the more formal lists in the bulletin are here given; but some mistakes occurred in the summary, which became the basis for continued errors in the lists of Professor Snow and others. Doctor Allen writes me that he did not meet with either the magpie or the Esquimo curlew in Kansas and that the breeding record for them belongs to Colorado. He also writes that he did not see the red-backed sandpiper and little black rail in Kansas.

This paper in the *American Naturalist* contains the first record for *Ægialites montana*, *Pediocetes phasianellus campestris*, *Calcarius ornatus*, *Rynchophanes maccownii*, *Peucæa cassini*, *Habia melanocephala*, *Helminthophila pinus*, *Helminthophila ruficapilla*, *Compsothlypis americana*, *Dendroica cærulea*, and *Dendroica Blackburnia*.

1872. A[LLEN], J. A. Birds of Kansas. From *Am. Naturalist*, vol. VI, June, 1872, pp. 359-360.

Editorial review of Snow's *Birds of Kansas*, 1st edition. (A reprint in pamphlet form, 8vo, pp. 8.)

1872. ALLEN, J. A. Notes of an Ornithological Reconnaissance in portions of Kansas, Colorado, Wyoming, and Utah. From *Bull. Mus. Comp. Zoölogy*, vol. III, no. 6, July, 1872, pp. 113-183. Contains of interest in this connection,—

(1). A List of Birds observed at Fort Leavenworth and Topeka in the spring of 1871. (121 species.)

(2). A List of Birds observed at Fort Hays, May-July, 1871. (61 species.)

(3). A List of Birds observed in northwestern Kansas, December, 1871, and January, 1872. (25 species.)

This paper adds to the Kansas list *Empidonax acadicus*, *Dendroica discolor*, and *Geothlypis philadelphia*.

1872. A[LLEN], J. A., B[REWER], T. M., and SNOW, F. H. Remarks on Snow's Catalogue of the Birds of Kansas. From *Am. Naturalist*, vol. VI, July, 1872, pp. 482-3.

Brewer defends the list, Allen modifies former criticisms, and Snow announces the addition of 45 species to the list, 21 contributed by Professor Allen, 22 by Professor Baird, one by both Allen and Baird, and one by E. A. Popenoe. The one by Popenoe, Henslow's sparrow, was given by Baird 1858; those by Allen have already been given in this paper, except little black rail, red-backed sandpiper, and Esquimo curlew. Allen now writes that these were errors. Professor Baird's contributions were based mostly on an examination of materials in the U. S. National Museum, and the new ones are as follows:

Merganser serrator, *Branta canadensis hutchinsii*, *Gallinula galeata*, *Tringa*

bairdii, *Limosa hæmastica*, *Numenius hudsonicus*, *Charadrius squatarola*, *Ægialitis meloda circumcincta*, *Ictinia mississippiensis*, *Falco richardsonii*, *Calcarius pictus*, *Piranga rubra*, *Vireo solitarius*, *Dendroica virens*, *Dendroica cærulescens*, *Seiurus noveboracensis*, *Troglodytes hiemalis*, *Sitta canadensis*, *Turdus unalaskæ pallasi*.

Of the other three, the black-shouldered longspur is now considered identical with the chestnut-collared longspur, the golden-winged warbler was included on an error of locality, and Doctor Coues writes that Professor Baird was in error when he included the scissor-tailed flycatcher as "taken by Coues at Fort Riley, Kan." Doctor Coues tells me that he never saw a live bird of this species in Kansas or elsewhere.

1872. SNOW, F. H. A Catalogue of the Birds of Kansas. Contributed to the Kansas Academy of Science by Frank H. Snow, professor of natural history and meteorology in the University of Kansas, at Lawrence. Second edition, October, 1872. Kansas City: Bulletin steam book and job printers and engravers. 1872. Small 8vo pamphlet, pp. 16.

This edition contains the additions above mentioned, together with the following, new to our fauna: *Ardea candidissima* and *Larus argentatus smithsonianus*. The sage cock is omitted, leaving 282 species and races on the list, of which 270 are valid.

The article is reprinted in *Trans. Kan. Academy of Science*, vol. III, 1873.

1872. COUES, E. Key to North American Birds: Containing a concise account of every species of living and fossil bird at present known from the continent north of the Mexican and United States boundary. Illustrated by six steel plates and upwards of 250 wood cuts. By Elliott Coues, assistant surgeon United States army. Salem: Naturalists Agency. New York: Dodd & Mead. Boston: Estes & Lauriat. 1872. One vol., imp. 8vo, 4 pl., pp. 361+51, pl. 6, fig. 238.

Many Kansas references.

1872. MARSH, O. C. Discovery of a Remarkable Fossil Bird [*Hesperornis regalis*]. From *Am. Journal of Science*, vol. III, 1872, pp. 56-7.

1872. MARSH, O. C. Preliminary Description of *Hesperornis regalis*, with notices of four other new species of Cretaceous birds. From *Am. Journal of Science*, vol. III, 1872, pp. 360-365.

1873. SNOW, F. H. Catalogue of the Birds of Kansas. From *Trans. Kan. Acad. of Science*, a part of the report of the Kansas State Board of Agriculture for 1872, pp. 375-386. Published in April, 1873. Differs from the pamphlet of Oct. 1872 only in the addition of *Colaptes mexicanus*, and the reduction of *Colaptes hybridus* to 40a of the list. Total, 282 species.

1873. SNOW, F. H. Harlan's Hawk and the Mexican Cormorant. From *Am. Nat.*, vol. VII, pp. 172-3.

1873. C[OUES], E. Ornithology of the West. From *Am. Naturalist*, vol. VII, 1873, pp. 221-223. A review of J. A. Allen's paper in *Bull. Mus. Comp. Zoölogy*, vol. III, 1872, pp. 113-183.

1873. MARSH, O. C. Fossil Birds from the Cretaceous of North America. From *Am. Journal of Science*, vol. V, 1873, pp. 161-163.

1874. COUES, ELLIOTT. Department of the Interior. United States Geological Survey of the Territories. F. V. Hayden, U. S. Geologist-in-charge. Mis-

cellaneous Publications—No. 3. Birds of the Northwest: a handbook of the ornithology of the region drained by the Missouri river and its tributaries. By Elliott Coues, captain and assistant surgeon U. S. army. Washington: Government printing office. 1874. 8vo, pp. i-xi, 1-791.

An exceedingly valuable contribution to North American ornithology. Excellent synonymatic lists, useful to every working ornithologist. It contains references to 231 species as occurring in Kansas, quotations being from:

- (1). Baird, S. F. Birds of N. America, in vol. IX, P. R. R. Surveys. 1858.
- (2). Coues, E. Am. Naturalist, vol. V, 1871, p. 195.
- (3). Allen, J. A. Bull. Mus. Comp. Zoölogy, vol. III. 1872.
- (4). Snow, F. H. Birds of Kansas, 2d edition. 1873.

1874. B[ENSON], F. S. The Western Meadowlark (*Sturnella neglecta*). From Forest and Stream, vol. II, no. 9, p. 134.

1874. SNOW, F. H. Birds of Kansas. From Observer of Nature (newspaper) for April, 1874.

Adds six species to the list of 1872, five of which are first announcements: *Colymbus nigricollis californicus*, *Larus delawarensis*, *Helmitherus vermivorus*, *Dendroica striata*, and *Dendroica maculosa*.

1874. WILLISTON, S. W. The Prairie-dog, Owl, and Rattlesnake. From Am. Naturalist, vol. VIII, April, 1874, p. 203.

1874. SNOW, F. H. Birds of Kansas. From Am. Naturalist, vol. VIII, 1874, p. 757.

Same six species given in the citation above.

1874. BAIRD, S. F., BREWER, T. M., and RIDGWAY, R. A History of North American Birds, by S. F. Baird, T. M. Brewer, and R. Ridgway. Land Birds. Illustrated by 64 colored plates and 593 woodcuts. Vol. I[-III]. Boston: Little, Brown & Co., 1874. 3 vols., small 4to., pp —.

Numerous Kansas references.

1874. B[ENSON], F. S. What Some Birds Eat. From Forest and Stream, vol. II, no. 22, July 7, 1874, p. 341.

Observations made in Russell county. Food habits of about thirty-five species. List of birds that eat only insects; also a list of rare birds taken in that locality. Adds to the Kansas list *Sterna hirundo*, *Numenius borealis*, *Piranga ludoviciana*, and *Pipilo maculata arctica*.

1875. SNOW, F. H. Birds of Kansas. From Transactions Kan. Academy of Science for 1874, pp. 30, 31. Pamph. Topeka, 1875.

Adds nine species to the bird fauna. Six have been cited above. The Bohemian waxwing here given as an addition is based on the Fort Riley specimen taken by Doctor Hammond and reported in Baird, 1858. The new birds are *Micropalama himantopus* and *Calidris arenaria*.

1875. SNOW, F. H. Birds of Kansas. From Observer of Nature, vol. II, March 24, 1875.

Contains first record for *Ægiothus linaria*.

1875. GAUMER, G. F. Ornithological Notes. From Observer of Nature, March 24, 1875.

Notes on several Kansas birds and a list of birds seen March 13, 1875.

1875. SNOW, F. H. New Birds in Kansas. From Am. Naturalist, vol. IX, no. 8, August, 1875, p. 470.

Adds *Dendroica palmarum*.

1875. MARSH, O. C. *Odontornithes* or *Birds with Teeth*. From *Am. Naturalist*, vol. IX, 1875, p. 625.

Has Kansas references.

1875. SNOW, F. H. *A Catalogue of the Birds of Kansas*, contributed to the Kansas Academy of Science, by F. H. Snow, professor of natural history and meteorology in the University of Kansas, at Lawrence. Third edition, November, 1875, 8vo, pamph., pp. 14.

Reports the addition of twenty-three species and one variety since the issue of the second edition. Several species and varieties have been dropped. The list now contains 295 species, 136 of which are marked as breeding. The list, really corrected to January 1, 1876, contains the first Kansas record for *Ardea cœrulea*, *Archibuteo ferrugineus*, *Milvulus forficatus*, *Sayornis saya*, *Corvus cryptoleucus*, *Cyanocephalus cyanocephalus*, *Coccothraustes vespertinus montanus*, *Ammodramus leconteii*, *Junco aikenii*, *Guiraca cœrulea*, *Salpinctes obsoletus*, *Myiadestes townsendii*, and *Sialia arctica*.

1876. [ALLEN, J. A.] Editorial notice of Snow's *Birds of Kansas*, third edition, 1875. From *Bull. Nutt. Ornith. Club*, vol. I, 1876, p. 47.

1876. [ALLEN, J. A.] Editorial notice of Marsh's "*Extinct Birds with Teeth*." From *Bull. N. O. C.*, vol. I, 1876, p. 49.

1876. SNOW, F. H. *New Kansas Birds*. From *Observer of Nature*, vol. III, no. 6, April 26, 1876.

The eleven species here noted all appear in Snow's third edition, already cited.

[1876.] SNOW, F. H. *Catalogue of the Birds of Kansas*. From *Proceedings of Kansas State Board of Agriculture for 1875*, pp. 128-139.

Reprint of Snow's third edition, 1875, without changes.

1878. GOSS, N. S. *Breeding of the Duck Hawk in Trees*. From *B. N. O. Club*, vol. III, 1878, p. 32.

1878. SNOW, F. H. *Additions to the Catalogue of Kansas Birds*. From *Transaction Kan. Acad. Science*, vol. 6, p. 38.

Adds to the list, *Xema sabinii*, *Chen cærulescens*, *Nycticorax violaceus*, *Melanerpes torquatus*, *Icteria virens longicauda*, and *Anthus spragueii*.

1878. WILLISTON, S. W. *On the Adult Male Plumage of Wilson's Phalarope*. From *Trans. Kan. Acad. Science*, vol. 6, p. 39.

1878. COUES, ELLIOTT. *Department of the Interior, United States Geological Survey of the Territories*. F. V. Hayden, U. S. Geologist-in-charge. *Miscellaneous Publications—No. 11. Birds of the Colorado Valley, a repository of scientific and popular information concerning North American ornithology*. By Elliott Coues. [Motto.] Part First. *Passeres to Laniidæ*. Biographical appendix. Seventy illustrations. Washington: Government printing office. 1878. 8vo, pp. i-xvi, 1-807.

Forty-four references to Kansas species.

1879. WILLISTON, S. W. *A Fond Foster Father*. From *Forest and Stream*, vol. 11, no. 1, p. 2.

A male cardinal in a cage rears Baltimore orioles.

1879. GOSS, N. S. *The True Brant in Kansas*. From *Forest and Stream*, vol. 9, no. 23, p. 430.

Several instances given.

1879. WILLISTON, S. W. A List of Birds of Southern Wyoming. From Forest and Stream, vol. XII, pp. 309, 325, 365, 385.

1879. GOSS, N. S. Bonaparte's Gull in Kansas. From B. N. O. Club, vol. 4, 1879, p. 190.

Larus philadelphia added to list.

1880. JENKINS, JEFF. The Northern Tier, or Life among the Homestead Settlers. By Jeff Jenkins. Topeka, Kan.: Geo. W. Martin, Kansas Publishing House. 1880. 8vo, pp. —.

Chapter 6 treats of northern Kansas birds in a popular but not very accurate manner.

1880. GOSS, N. S. The Black Rail in Kansas. From B. N. O. Club, vol. V, p. 60.

This becomes the first authentic record for *Porzana jamaicensis*.

1881. GOSS, N. S. Bell's Finch (*Amphispiza belli*) in New Mexico. From B. N. O. Club, vol. VI, 1881, p. 116.

1881. GOSS, N. S. The White-necked Raven (*Corvus cryptoleucus*) in New Mexico. From B. N. O. Club, vol. VI, 1881, p. 118.

1881. BLACHLY, DR. C. P. Ornithology of Riley County, Kansas. From Trans. Kan. Acad. Sci., vol. VII, 1881, pp. 105-114.

New to our fauna: *Falco rusticolus*, and Wright's flycatcher, the latter an error of identification.

1881. GOSS, N. S. *Myiodioides canadensis* in Kansas. From B. N. O. Club, vol. VI, p. 246.

A first record.

1881. GOSS, N. S. The Yellow-crowned Night-heron in Kansas. From B. N. O. Club, vol. VI, p. 248.

1882. COOKE, W. W. Bird Migration in the Mississippi Valley. From Forest and Stream, vol. XVIII, p. —.

Not seen by me.

1882. ALLEN, J. A. Nelson's Sharp-tailed Finch. From B. N. O. Club, vol. VII, p. 55.

Reports its capture in Kansas by Colonel Goss. First record for *Ammodramus caudacutus nelsoni*.

1882. SNOW, F. H. The Snake-bird in Kansas. From B. N. O. Club, vol. VII, 1882, p. 61.

Anhinga anhinga added to list.

1883. GOSS, N. S. Observations of the Nesting Habits of the Guillemots at Bird Rock. From Trans. Kan. Acad. Sci., vol. VIII, 1883, pp. 59-60.

1883. GAUMER, G. F. Notes on *Meleagris ocellata* Cuv. From Trans. Kan. Acad. of Science, vol. VIII, 1883, pp. 60-62.

1883. GAUMER, G. F. Notes on the Habits of Certain Momotidæ. From Trans. Kan. Acad. of Science, vol. VIII, 1883, pp. 63-66.

1883. COALE, H. K. *Troglodytes aedon parkmanni* in Kansas. From B. N. O. Club, vol. VIII, 1883, p. 120.

This is not a new record. All the birds of this species in Kansas have since been referred to the form *T. aedon aztecus*.

1883. Goss, N. S. Occurrence of Northern Phalarope, Audubon's Warbler, and Mocking-bird in Western Kansas. From B. N. O. Club, vol. VIII, p. 186.

First record for *Phalaropus lobatus* and *Dendroica auduboni* in the state.

1883. Goss, N. S. A Catalogue of the Birds of Kansas, by N. S. Goss. Published under the direction of the executive council. Topeka, Kan.: Kansas Publishing House, 1883. 8vo, pp. 1-34.

Catalogues 320 species and races, of which 161 breed in the state.

First record for *Larus californicus*, *Anas cyanoptera*, *Plegadis guarauna*, *Tantalus loculator*, *Tringa alpina pacifica*, *Tympanuchus pallidicinctus*, *Contopus richardsonii*, *Otocoris alpestris arenicola*, *Dendroica vigorsii*, *Turdus aliciae*, and *Centrocercus urophasianus*; the last on doubtful authority, and so not counted in this paper.

1883. LANTZ, D. E. Useful Birds: Woodpeckers. From *Industrialist*, vol. IX, p. 15.

1883. LANTZ, D. E. The Food of Hawks. From *Industrialist*, vol. IX, p. 37.

1883. LANTZ, D. E. The Prothonotary Warbler. From *Ornithologist and Oölogist*, vol. VIII, March, 1883, p. 19.

1883. LANTZ, D. E. Bell's Vireo. From *ibid.* vol. VIII, December, 1883, p. 94.

1883. [ALLEN, J. A.] Editorial notice of Goss's Catalogue of the Birds of Kansas, 1883. From B. N. O. Club, vol. VIII, p. 227.

1883. COOKE, W. W. Bird Migration in the Mississippi Valley. From *Forest and Stream*, vol. XIX, 1883, Nos. 15, 16, and 20.

1883-'84-'85. COOKE, W. W. Mississippi Valley Migration. From *Ornithologist and Oölogist*, vols. VIII, IX, X, 1884-'85-'86. Contains much information as to the movements of migratory birds at various Kansas stations.

1884. Goss, N. S. Notes on the Breeding Habits of the American Eared Grebes. From *Auk*, vol. I, 1884, p. 18. Same article in *Trans. Kan. Acad.*, vol. IX, 1885, p. 31.

1884. COOKE, W. W. The Distribution and Migration of *Zonotrichia querula*. From *Auk*, vol. I, October, 1884, pp. 332-7.

1884. Goss, N. S. Birds new to the Fauna of Kansas and others rare in the state. From *Auk*, vol. I, 1884, p. 100.

Adds to our list *Buteo borealis kriderii*, *Sphyrapicus varius nuchalis*, *Zonotrichia leucophrys intermedia*, and *Merula migratoria propinqua*.

1884. Goss, N. S. Notes on the Nesting Habits of the Yellow-throated Vireo. From *Auk*, vol. I, 1884, p. 124.

Same article in *Trans. Kan. Acad. Sci.*, vol. IX, 1885, p. 33.

1884. Goss, N. S. Notes on *Phalacrocorax violaceus* and on *P. v. resplendens*. From *Auk*, vol. I, 1884, p. 163.

1884. Goss, N. S. Capture of *Megalestris skua* off Cape Cod, Sept. 10, 1884. From *Auk*, vol. I, p. 395.

1884. Goss, N. S. Capture of *Brachyrhamphus hypoleucus* on the Coast of Southern California, May 20, 1884. From *Auk*, vol. I, p. 396.

1884. BAIRD, S. F., BREWER, T. M., and RIDGWAY, R. Memoirs of the Museum of Comparative Zoölogy, vols. XII and XIII. The Water Birds of North

America, by S. F. Baird, T. M. Brewer, and R. Ridgway. Issued in continuation of the publications of the California Geological Survey. J. D. Whitney, State Geologist. Boston: Little, Brown & Co. 1884. Two vols., small quarto, pp. —.

Contains some Kansas references.

1884. LANTZ, D. E. The English Sparrow. From *Industrialist*, vol. IX, 1884, p. 27. Vol. X, p. 11. Vol. XVII, 1892, p. 153.

1884. LANTZ, D. E. The Crow Blackbird or Bronzed Grackle. From *Industrialist*, vol. X, p. 8.

1884. LANTZ, D. E. The Blue Grosbeak (*Guiraca cærulea*). From *Ornithologist and Oölogist*, vol. IX, 1884, p. 19.

1884. LANTZ, D. E. Notes from Manhattan, Kan. From *O. and O.*, vol. IX, 1884, p. 127; also vol. X, 1885, p. 29.

1885. LANTZ, D. E. The Red-bellied Woodpecker. From *O. and O.*, vol. X, 1885, p. 10.

1885. LANTZ, D. E. The Kentucky Warbler. From *O. and O.*, vol. X, 1885, p. 19.

1885. LANTZ, D. E. Kansas Bird Life. From *O. and O.*, vol. X, 1885, p. 52.

1885. LANTZ, D. E. Kansas Birds—Fall Migration. From *O. and O.*, vol. X, p. 72.

1885. LANTZ, D. E. Winter Birds at Manhattan, Kan. From *O. and O.*, vol. X, 1885, p. 84.

1885. LANTZ, D. E. Bird Migration. From *Industrialist*, vol. XI, p. 39.

1885. LANTZ, D. E. The Song of *Cardinalis virginianus*. From *Auk*, vol. II, p. 307.

1885. GOSS, N. S. Observations on *Elanoides forficatus* and *Ictinia subcærulea* in Kansas. From *Auk*, vol. II, 1885, p. 19.

1885. GOSS, N. S. Rare Summer Residents in Kansas. From *Auk*, vol. II, 1885, p. 113.

1885. GOSS, N. S. *Cyanocitta stellari frontalis* Nesting in Holes in Trees. From *Auk*, vol. II, 1885, p. 217.

1885. GOSS, N. S. Wilson's Plover in Nova Scotia. From *Auk*, vol. II, 1885, p. 221.

1885. GOSS, N. S. *Rissa tridactyla kotzebuei* in Washington Territory. From *Auk*, vol. II, 1885, p. 222.

1885. GOSS, N. S. The Black-capped Vireo and Nonpareil in Southwestern Kansas. From *Auk*, vol. II, 1885, pp. 274, 275.

First report of *Vireo atricapillus* and *Passerina ciris* in the state.

1885. GOSS, N. S. Early and Accidental Occurrence of *Catharista atrata* and *Tantalus loculator* in Kansas. From *Auk*, vol. II, 1885, p. 311.

1885. GOSS, N. S. The Little Yellow Rail in Kansas. From *Auk*, vol. II, 1885, p. 385.

First record of *Porzana noveboracensis*.

1885. DYCHE, L. L. The Little Yellow Rail (*Porzana noveboracensis*) in Kansas. From *O. and O.*, vol. X, Nov. 1885, p. 168.

Refers to his capture of a specimen of this bird, the same individual reported by Colonel Goss.

1885. MERRIAM, DR. C. HART. Preliminary Report of the Committee on Bird Migration. From Auk, vol. II, Jan. 1885, pp. 53-65.

Kansas localities referred to.

1885. KELLOGG, V. L. Notes on the Water Birds of Emporia, Kan. From O. and O., vol. X, July, 1885, pp. 104, 105.

1885. KELLOGG, V. L. Gulls, Terns, and Grebes at Emporia, Kan. From O. and O., vol. X, Oct. 1885, p. 152.

1885. GOSS, N. S. The Thick-billed Grebe (*Podylimbus podiceps*) breeding in Kansas. From Auk, vol. II, 1885, p. 388.

1886. GOSS, N. S. Additions to the Catalogue of Kansas Birds. From Auk, vol. III, pp. 112-115.

Adds to the list *Fregata aquila*, *Himantopus mexicanus*, *Anas fulvigula maculosa*, *Geococcyx californicus*, *Bubo virginianus subarcticus*, *Passerculus sandwichensis alaudinus*, and *Thryothorus bewicki bairdi* (?).

1886. GOSS, N. S. Capture of the Scissor-tailed Flycatcher on the Southeast Coast of Florida. From Auk, vol. III, p. 134.

1886. A. O. U. The Code of Nomenclature and Check-list of North American Birds adopted by the American Ornithologists' Union, being the report of the committee of the union on classification and nomenclature. [Motto.] New York. American Ornithologists' Union. 1886. 8vo, pp. —.

Adds to our list *Colinus virginianus texanus*. Contains specific mention of twenty-seven species as found in Kansas; also of ten fossil species found in western Kansas.

1886. LANTZ, D. E. The American Ornithologists' Union. From Industrialist, vol. 12, p. 9.

1886. LANTZ, D. E. Our Game Laws. From Industrialist, vol. XII, p. 22.

1886. DYCHE, L. L. The Red Crossbill (*Loxia curvirostra stricklandi*) in Kansas. From Auk, vol. III, Apr. 1886, p. 258.

First record. Remarks by Wm. Brewster.

1886. LANTZ, D. E. Mexican Crossbills in Kansas. From O. and O., vol. XI, Apr. 1886, p. 59.

1886. GOSS, N. S. The Number of Eggs laid by the Swallow-tailed Kite. From O. and O., vol. XI, Dec. 1886, p. 183.

1886. GOSS, N. S. A Revised Catalogue of the Birds of Kansas, with descriptive notes of the nests and eggs of the birds known to breed in the state. By N. S. Goss. Published under the direction of the Executive Council. May, 1886. Topeka: Kansas Publishing House, T. D. Thacher, state printer. 1886. 8vo., pp. i-iv+i, 1-76.

The list follows the nomenclature of the A. O. U. check-list, and embraces 335 species and races, of which 175 are known to breed in the state. Reports of A. O. U. committees are appended.

1886. BRENINGER, GEO. F. Nest and Eggs of the Short-eared Owl. From O. and O., vol. 11, 1886, p. 167.

Found breeding in Marshall county, Kansas.

1886. Goss, N. S. The Snowy Plover on the Salt Plains of Indian Territory and Kansas. From Auk, vol. III, 1886, p. 409.

Adds *Ægialitis nivosa* to our list.

1887. Goss, N. S. Additions to the Catalogue of Kansas Birds. From Trans. Kan. Acad. Science, vol. X, p. 28.

All previously reported.

1887. Goss, N. S. Additions to the Catalogue of the Birds of Kansas. From Auk, vol. IV, 1887, pp. 7-11.

Adds *Spizella monticola ochracea* to our list, and reports several species as breeding. Same article in Trans. Kan. Acad. of Science, vol. X, p. 77.

1887. Goss, N. S. What Constitutes a full Set of Eggs? From Auk, vol. IV, 1887, p. 167.

1887. RIDGWAY, ROBERT. A Manual of North American Birds, by Robert Ridgway. Illustrated by 464 outline drawings of the generic characters. Philadelphia: J. B. Lippincott Company, 1887. 8vo, pp. i-xi, 1-631, plates 124.

Has Kansas references.

1887. LANTZ, D. E. Report of the Committee on Ornithology. From Annual Report of the Kansas State Horticultural Society, vol. XVI, for 1886, pp. 189-193.

1887. SNOW, F. H. On the Discovery of a Fossil Bird Track in the Dakota Sandstone. From Trans. Kan. Acad. Science, vol. X, 1887, p. 3.

1887. Goss, N. S. *Merganser americana* breeding in New Mexico. From Auk, vol. IV, p. 344.

1887. Goss, N. S. *Ictinia mississippiensis* and *Ægialitis nivosa* nesting in Southern Central Kansas. From Auk, vol. IV, 1887, pp. 344, 345.

Same article in Trans. Kan. Acad. Science, vol. XI, p. 11.

1888. Goss, N. S. Feeding Habits of *Pelecanus erythrorhynchus*. From Auk, vol. V, p. 25.

Same article in Trans. Kan. Acad. Science, vol. XI, p. 11.

1888. Goss, N. S. Notes on the Yellow-tailed Cassique (*Gymnostinops monetzumæ*). From Auk, vol. V, p. 27.

Same article in Trans. Kan. Acad. Science, vol. XI, 1889, p. 12.

1888. COOKE, W. W. U. S. Department of Agriculture. Division of Economic Ornithology. Bulletin No. 2. Report on Bird Migration in the Mississippi Valley in the years 1884 and 1885, by W. W. Cooke. Edited and revised by Dr. C. Hart Merriam. Washington: Government Printing Office. 1888. 8vo, pp. 1-313, one map.

Many references to Kansas birds and localities. Part of the body of the report written by Otto Widmann, of St. Louis, Mo., and D. E. Lantz, of Manhattan, Kan.

1888. SNOW, F. H. *Æchmophorus occidentalis* in Kansas. From Auk, vol. V, 1888, p. 201.

First record for this species.

1888. BENNETT, A. L. The Surf Scoter (*Oidemia perspicillata*) in Kansas. From Auk, vol. V, 1888, p. 203.

First record for this species.

1888. Goss, N. S. New and rare birds found breeding on the San Pedro Martir Isle. From Auk, vol. V, 1888, pp. 240-244.

1888. GOSS, N. S. How far west has *Anas obscura* been found? From *Auk*, vol. V, 1888, p. 444.

1888. EVERMANN, B. W., and JENKINS, O. P. Ornithology from a Railroad Train. From *O. and O.*, vol. XIII, May, 1888, p. 65.

Notes of a journey from Indiana to Guaymas, Mex., with some Kansas observations *en route*.

1888. HARTZELL, L. B. Nesting of the Burrowing Owl. From *O. and O.*, vol. XIII, June, 1888, p. 85.

1889. GOSS, N. S. Additions to the Catalogue of the Birds of Kansas, with notes on their habits. From *Auk*, vol. VI, April, 1889, pp. 122.

Same article in *Trans. Kan. Acad. Sci.*, vol. XI, 1889, p. 60. Adds *Picicorvus columbianus* to our list.

1889. GOSS, N. S. The Anhinga (*Anhinga anhinga*). From *Trans. Kan. Acad. Sci.*, vol. XI, 1889, p. 58.

1889. GOSS, N. S. The Double-crested Cormorant (*Phalacrocorax dilophus*). *Ibid.* p. 59.

1889. SNOW, F. H. Three new Kansas Birds. *Trans. Kan. Acad. Sci.*, vol. XI, p. 62.

Refers to species already reported.

1889. LANTZ, D. E. The Harrier or Marsh Hawk. From the *Industrialist*, vol. XV, p. 21.

1889. LANTZ, D. E. The Icteridæ. From Report of Standing Committee on Ornithology, in Report of Kan. State Hort. Society, vol. XVIII, 1889-'90, pp. 219-224.

1889. LANTZ, D. E. List of Birds Beneficial to Horticulturists. *Ibid.* pp. 224-5.

1889. BARROWS, WALTER B. U. S. Department of Agriculture. Division of Economic Ornithology and Mammalogy, Bulletin No. 1. The English Sparrow (*Passer domesticus*) in North America, especially in its relations to agriculture. Prepared under the direction of Dr. C. Hart Merriam, ornithologist, by Walter B. Barrows, assistant ornithologist. Washington: Government Printing Office, 1889.

Kansas references and contributions.

1890. DWIGHT, J., JR. The Horned Larks of North America. From *Auk*, vol. VII, 1890, pp. 138-158, map.

Adds to Kansas fauna *Otocoris alpestris leucolæma* based on winter specimens from Manhattan and Fort Riley.

1890. KELLOGG, V. L. Summer Birds of Estes Park [Colo.] From *Trans. Kan. Acad. Sci.*, vol. XII, pp. 86-90.

1890. KELLOGG, V. L. Some Notes on the Mallophaga (bird-lice). *Trans. Kan. Acad. Sci.*, vol. XII, pp. 46-48.

1890. GOSS, N. S. The Mottled Duck in Kansas. From *Auk*, vol. VII, p. 88.

Adds to our list *Anas fulvigula maculosa*, previously reported as *Anas fulvigula*.

1890. Goss, N. S. *Phalaenoptilus nuttalli nitidus* breeding in Kansas. *Ibid.* p. 286.

First record for the state.

1890. Goss, N. S. Additions to the List of Kansas Birds. From *Trans. Kan. Acad. Sci.*, vol. XII, 1890, p. 24.

Same bird mentioned above and little brown crane, *Grus canadensis*.

1890. Goss, N. S. Correction to Catalogue of Kansas Birds. From *ibid.* p. 60. Same article in the *Auk*, vol. VIII, 1891, p. 116.

1890. Goss, N. S. Second Occurrence in Kansas of White-faced Glossy Ibis. From *ibid.* p. 61.

Same article in the *Auk*, vol. VIII, 1891, p. 112.

1890. LANTZ, D. E. Injury to Grapes by Birds. From the *Industrialist*, vol. XV, p. 105.

1890. LANTZ, D. E. Habits of the Barred Owl. From the *Auk*, vol. VII, 1890, p. 286.

1891. LANTZ, D. E. Report of the Standing Committee on Ornithology. From Second Biennial Report of Kansas State Horticultural Society, vol. XVIII, appendix, p. 16.

1891. Goss, N. S. History of the Birds of Kansas. By N. S. Goss. Illustrating 529 birds. Topeka, Kan.: Geo. W. Crane & Co., printers and binders. 1891. Royal 8vo, pp. 692+1 l, and 35 photogravure full-page plates.

Three hundred and forty-three species and races are described, all previously reported. Sage grouse and shore lark eliminated from the list.

1891. PEABODY, REV. P. B. A Probable Addition to the Avifauna of Kansas. From *O. and O.*, vol. XVI, 1891, p. 14.

Barrow's golden-eye, an error of identification, which Mr. Peabody corrects in the following number of *O. and O.*, p. 25.

1891. PEABODY, REV. P. B. A Plea for Nest Collecting. From *O. and O.*, vol. XVI, 1891, p. 98.

1891. ALLEN, J. A. Goss's History of the Birds of Kansas. From *Auk*, vol. VIII, 1891, p. 228.

Editorial review.

1891. [ANONYMOUS.] Obituary notice of Col. N. S. Goss. From *Auk*, vol. VIII, 1891, p. 245.

1891. [EDITORIAL.] Goss's History of the Birds of Kansas. From *O. and O.*, vol. XVI, 1891, p. 176.

A review.

1892. PEABODY, REV. P. B. A Dip into the January Ornithologist and Oölogist. From *O. and O.*, vol. XVII, 1892, p. 39.

1892. PEABODY, REV. P. B. Where the Mississippi Kites Fly. *Ibid.* p. 168.

1892. WILLISTON, S. W. Kansas Pterodactyls. From *Kansas University Quarterly*, vol. I, 1892, pp. 1-14, vol. II, 1893, pp. 79-82.

1892. SNOW, F. H. The Pacific Eider in Kansas. From *Auk*, vol. IX, 1892, p. 198.

First record for *Somateria v-nigra*.

1892. BENDIRE, CHAS. Smithsonian Institution. United States National Museum. Special Bulletin No. 1. Life Histories of North American Birds, with special reference to their breeding habits and eggs, with twelve lithographic plates. By Charles Bendire, captain U. S. army (retired), honorary curator [etc.] Washington: Government Printing Office. 1892. 4to, pp. i-viii, 1-446, pll. 12.

Kansas references to twenty-five species and notes by Kansas observers.

1893. COLLETTE, A. M. Two Rare Birds of Kansas. From Trans. Kan. Acad. Sci., vol. XIII, 1893, p. 29.

Refers to glossy ibis and Clarke's nutcracker.

1893. COLLETTE, A. M. Nesting of the Pied-billed Grebe. Ibid. p. 49.

1893. HASBROUCK, E. M. Evolution and Dichromatism in the genus Megascops. From Am. Naturalist, vol. XXVII, 1893, pp. 521-533, 638-649.

1893. KELLOGG, V. L. The Road-runner in Kansas. From Auk, vol. X, 1893, p. 364.

Its occurrence in Comanche county noted.

1893. LANTZ, D. E. *Ionornis martinica* in Kansas. From Auk, vol. X, 1893, p. 300.

First record for this species.

1894. KELLOGG, V. L. Notes on Kansas Birds. From Auk, vol. XI, 1894, p. 260.

A notice of Menke's Birds of Finney County, announcing that four of them are new to our fauna. Real additions are: *Carpodacus mexicanus frontalis* and *Hesperocichla naevia*.

1894. LANTZ, D. E. Harris's Sparrow. From Industrialist, vol. XX, p. 125.

1894. MENKE, H. W. Birds of Finney County, Kansas. From Kansas University Quarterly, vol. III, Oct. 1894, pp. 129-136.

A local list of 166 species, including the European house sparrow. He adds to the Kansas fauna the three species already reported to the Auk by Mr. Kellogg.

1894. COALE, H. K. Ornithological Notes of a Flying Trip through Kansas, New Mexico, Arizona, and Texas. Auk, vol. XI, 1894, p. 216.

A few notes at Fort Leavenworth and Fort Riley.

1895. BURNS, FRANK L. Bulletin No. 5. The Wilson Ornithological Chapter of the Agassiz Association. The American Crow (*Corvus americanus*), with special reference to its nest and eggs. By Frank L. Burns. Oberlin, Ohio. March 15, 1895. small 8vo pamph., pp. 1-41.

1895. LANTZ, D. E. Bird Notes for the Season. From Industrialist, vol. XX, p. 125.

1895. LANTZ, D. E. The Blue-gray Gnatcatcher. From Industrialist, vol. XXI, p. 41.

1895. BENDIRE, C. Smithsonian Institution. United States National Museum. Special Bulletin [No. 3]. Life Histories of North American Birds, from the Parrots to the Grackles, with special reference to their breeding habits and eggs. By Charles Bendire, captain and brevet major, U. S. A. (retired), with seven lithographic plates. Washington: Government Printing Office. 1895. 4to, pp. i-viii, 1-518, plates 7.

Specific mention of thirty-seven species as found in Kansas.
Some notes by Kansas observers.

1895. A. O. U. Check-list of North American Birds, prepared by a committee of the American Ornithologists' Union. Second and revised edition. New York: American Ornithologists' Union. 1895. 8vo, pp. xi + 372.

Specific mention of many Kansas species.

1895. WILLISTON, S. W. Notes on the Mandible of *Ornithostoma*. From Kansas University Quarterly, vol. IV, 1895, p. 61.

1896. LANTZ, D. E. An Annotated List of the Birds found near Manhattan, Kan. From Trans. Kan. Acad. Science, vol. XIV, 1896, pp. 116-123. A local list of 240 species and races, of which 100 species have been found breeding, while a number of others are supposed to breed.

1896. LANTZ, D. E. Notes on *Loxia curvirostra stricklandi*. Ibid. p. 124.

1896. WILLISTON, S. W. On the Skull of *Ornithostoma*. From Kan. University Quarterly, vol. IV, April, 1896, p. 195.

1896. WILLISTON, S. W. On the Dermal Covering of *Hesperornis*. Ibid. vol. V, July, 1896, p. 53.

1897. LANTZ, D. E. Notes on *Phaenoptilus nuttalli nitidus*. From Trans. Kan. Acad. Science, vol. XV, 1897.

1897. KELLOGG, VERNON L. Additions to Goss's Revised Catalogue of the Birds of Kansas. From Trans. Kan. Acad. Sci., vol. XV, 1897.

No species not previously reported.

1897. LANTZ, D. E. Birds of Western Uplands. From Western Homes, vol. I, Oct. 1897, pp. 30-33.

1897. AUDUBON, MARIA R. Audubon and his Journals, by Maria R. Audubon, with zoölogical and other notes, by Elliott Coues. Vol. I. [II]. New York: Charles Scribner's Sons, 1897. 2 vols., 8vo, pp. i-x, 532, 554, nine facsimile diplomas, etc.

Among these interesting journals is the account of his journey up the Missouri river in May, 1843. Interesting observations and collections were made above Fort Leavenworth and near St. Joseph on the west side of the river. At least sixty-four species of birds are mentioned as observed in Kansas, among them being Bell's vireo and Harris's finch, sp. nov. Other birds are referred to in general terms, as, blackbird, grebe, swan, etc., with no means of positive identification.

RECAPITULATION.

Year.	Authority reporting.	No. added.	Total on list.
1810....	Z. M. Pike	1	1
1814....	Lewis and Clarke	1	2
1823....	Thomas Say	8	10
1839....	Prince Maximilian of Wied	12	22
1844....	Gregg	2	24
1845....	Fremont	1	25
1848....	Lieutenant Abert	26	51
1849....	Francis Parkman	1	52
1851....	Kelly	1	53
1858....	Baird. P. R. R. reports	42	95
1865....	Doctor Hoy	1	96
1865....	Doctor Coues. Ibis	7	103
1871....	Doctor Coues. American Naturalist	7	110
1872....	Professor Snow. 1st edition, April	106	216

Year.	Authority reporting.	No. added.	Total on list.
1872....	Snow. Same edition, on authority of Brewer.....	19	235
1872....	Allen, in American Naturalist for May	11	246
1872....	Allen, in Bull. M. C. Zoöl. for July.....	3	249
1872....	Snow, on authority of Baird. American Naturalist.....	19	268
1872....	Snow. 2d edition of catalogue, usually cited 1873.....	2	270
1873....	Snow. Transactions Board of Agriculture.....	1	271
1874....	Snow. Observer of Nature	5	276
1874....	Benson. Forest and Stream	4	280
1875....	Snow, in various papers.....	4	284
1875....	Snow. 3d edition, correct to Jan. 1, 1876.....	13	297
1878....	Snow.....	6	303
1879....	Colonel Goss	1	304
1880....	Goss	1	305
1881....	Doctor Blachly	1	306
1881....	Goss	1	307
1882....	Allen, on authority of Goss.....	1	308
1882....	Snow.....	1	309
1883....	Goss	2	311
1883....	Goss, 1st edition of catalogue.....	10	321
1884....	Goss, Auk, vol. I	4	325
1885....	Goss, Auk, vol. II.....	2	327
1885....	Goss, on authority of Dyche.....	1	328
1886....	Goss, Auk, vol. III, p. 112.....	7	335
1886....	Dyche.....	1	336
1886....	A. O. U. Check-list.....	1	337
1886....	Goss, Revised Catalogue.....	..	337
1886....	Goss, Auk, vol III, p. 409.....	1	338
1887....	Goss, Auk, vol. IV, p. 7.....	1	339
1888....	Snow, Auk, vol. V.....	1	340
1888....	Bennett, Auk, vol. V.....	1	341
1889....	Goss, Auk, vol. VI, p. 122.....	1	342
1890....	Dwight, Auk, vol. VII.....	1	343
1890....	Goss, Auk, vol. VII, p. 286.....	1	344
1890....	Goss, Trans. Kan. Acad. Science.....	1	345
1891....	Goss, History of Kan. Birds.....	..	345
1892....	Snow, Auk, vol. IX.....	1	346
1893....	Lantz, Auk, vol. X.....	1	347
1894....	Kellogg, on authority of Menke.....	2	349

II. An Historical List of Kansas Birds.

In the following list, I have, to some extent, made use of the zone names proposed by the United States Biological Survey. (Year book of the Department of Agriculture for 1894.) Briefly stated, there are three primary life regions recognized in the North American continent—boreal, austral, and tropical. The boreal region is divided into three well marked zones stretching in irregular lines across the continent—the arctic zone, the Hudsonian zone, and the Canadian zone. The austral region is similarly divided into three transcontinental zones—the transition zone, the upper austral zone, and the lower austral zone. The tropical region enters the United States at only three points—in southern

Florida, southern Texas, and the lower Colorado valley in western Arizona, and in southeastern California.

The boundaries of these zones have not yet been fully determined, so that any attempt to apply them to the various species in describing their geographical distribution must as yet appear crude; but the advantages of recognizing a general system like the one proposed are so great, that I could not refrain from partially using it.

1. 1. *Æchmophorus occidentalis* (Lawr.) Western Grebe. Accidental in Kansas. A western species, ranging from Lower California and Mexico to the British provinces and eastward to the mountains. Breeds throughout its normal range. One specimen, a young male, was taken on the Kansas river at Lawrence, November 3, 1887, and reported to the Auk of April, 1888, by Prof. F. H. Snow.

2. 3. *Colymbus auritus* (Linn.) Horned Grebe. Migratory; rare. Breeds in northern United States and British America. Snow, 1872, and all subsequent lists.

3. 4. *Colymbus nigricollis californicus* (Heerm.) American Eared Grebe. Migratory; rare in eastern Kansas; more frequent in the western counties, where it may breed. First reported from the state by Professor Snow, in Observer of Nature, April, 1874. Snow's Catalogue, 1875.

4. 6. *Podilymbus podiceps* (Linn.) Pied billed Grebe. Chiefly migratory; common. A few breed in the state in suitable localities and favorable seasons. Snow, 1872. Found breeding at Emporia, May 26, 1885, by Bennett and Kellogg.

5. 7. *Gavia imber* (Gunn). Loon. Migratory; not common. Breeds in northern United States and British provinces. Snow, 1872.

6. 51a. *Larus argentatus smithsonianus* (Coues). American Herring Gull. Migratory; rare. Snow, 1873.

7. 53. *Larus californicus* (Lawr.) California Gull. Migratory; rare. Goss, 1883. Taken by him in Reno county, October 20, 1880.

8. 54. *Larus delawarensis* (Ord). Ring-billed Gull. Migratory; rather common. Snow, 1875. Taken at Lawrence, April, 1873, by N. J. Stephens.

9. 59. *Larus franklinii* (Sw. & Rich.) Franklin's Gull. Migratory; common. Coues, 1865, in the Ibis.

10. 60. *Larus philadelphia* (Ord). Bonaparte's Gull. Migratory; not common. Goss, 1879. Taken April 18, 1879. B. N. O. C., vol. 4, p. 190. Taken also at Manhattan, April 7, 1890.

11. 62. *Xema sabinii* (Sab.) Sabine's Gull. An accidental visitant; very rare. Snow, 1878. A specimen taken by Peter Long at Humboldt, September 21, 1876.

12. 69. *Sterna forsteri* (Nutt.) Foster's Tern. A common migrant. May breed in the state. Snow, 1872.

13. 70. *Sterna hirundo* (Linn.) Common Tern. Migratory; rare. Listed by Snow, first and second editions, but eliminated from the third edition. Reported from Russell county by F. S. Benson in 1874. Forest and Stream, vol. 2, p. 341. Goss, 1883.

14. 74. *Sterna antillarum* (Less.) Least Tern. Summer resident; rare. Ranges throughout the greater part of the United States and the southern part of the British provinces, breeding in the greater part of its range, but chiefly in

the south. Snow, 1872. Found breeding on the Cimarron river, in Kansas, by Colonel Goss.

15. 77. *Hydrochelidon nigra surinamensis* (Gmel.) Black Tern. Summer resident; rare; in migration, common. Breeds from Kansas northward into British America. Snow, 1872.

16. 118. *Anhinga anhinga* (Linn.) Anhinga. A rare visitant in summer. Belongs to the lower austral and tropical regions of the United States and southward. Taken twice in Kansas—in the Solomon valley, August, 1881, by C. W. Smith, of Stockton, and on Crooked creek, Meade county, May 1, 1888, by Daniel Lambert, of Wilburn, Ford county. First reported by Snow, 1882, B. N. O. C., vol. VII, p. 61.

17. 120. *Phalacrocorax dilophus* (Sw. & Rich.) Double-crested Cormorant. Migratory; not rare. Breeds in the Canadian zone, west to the mountains. Snow, 1872.

18. 121. *Phalacrocorax mexicanus* (Brandt). Mexican Cormorant. A rare visitant. Belongs to the tropical region. A single specimen was captured at Lawrence, April 2, 1872, by Geo. D. Allen, and reported by Professor Snow in his first edition as *P. floridanus*; corrected in the second edition.

19. 125. *Pelecanus erythrorhynchus* (Gmel.) American White Pelican. A common migrant. May rarely breed in the state, but thus far reports of their breeding have not been verified. They nest on the islands in the rivers and lakes of the northern United States and British America. Snow, 1872.

20. 128. *Fregata aquila* (Linn.) Man-o'-War Bird. Accidental in the state. They inhabit the tropical seacoasts, mostly north of the equator; somewhat common on the coasts of the lower austral zone; accidental in Ohio, Nova Scotia, and Kansas. Taken at Downs by Frank Lewis, August 16, 1880. Reported by Goss. Auk, vol. III, p. 112.

21. 129. *Merganser americanus* (Cass.) American Merganser. A winter sojourner; rather common. Breed chiefly north of the United States, except in the mountain ranges. Snow, 1872.

22. 130. *Merganser serrator* (Linn.) Red-breasted Merganser. A rare winter visitant. Breeds in the boreal region, chiefly in the Hudsonian and arctic zones. Its winter range extends throughout the greater part of the United States. Snow, second edition, 1872, on authority of Baird.

23. 131. *Lophodytes cucullatus* (Linn.) Hooded Merganser. A rare resident; common in migration. Ranges over nearly the whole of North America, breeding from Kansas northward along the inland streams and lakes. Snow, 1872.

24. 132. *Anas boschas* (Linn.) Mallard. A rare resident; abundant in migration, often found on open streams in midwinter. Ranges over the whole of North America, breeding chiefly northward. Baird, 1858.

133. *Anas obscura* (Gmel.) Black Duck. Migratory, if it occurs. A bird of the eastern parts of North America, not common west of the Allegheny mountains and rare west of the Mississippi. Snow, 1872, and all later catalogues; but evidence of its occurrence in Kansas is entirely wanting, and it should be dropped from our list.

25. 134a. *Anas fulvigula maculosa* (Senn.) Mottled Duck. Not common; may breed. Habitat, Texas north to Kansas. Specimens of this duck taken in Kansas have been mistaken for the black duck. Goss, 1886. Entered as *A. fulvigula*.

26. 135. *Chaulelasmus streperus* (Linn.) Gadwall. A rare summer resident; common in migration. Ranges over the northern hemisphere, breeding mostly in the northern parts. Snow, 1872.

27. 137. *Mareca americana* (Gmel.) Baldpate. A rare summer resident; common in migration. Nearly the same range as the preceding species. Snow, 1872.

28. 139. *Nettion carolinensis* (Gmel.) Green-winged Teal. An abundant migrant, sometimes wintering in Kansas. Breeds chiefly north of the United States and winters on the southern borders and in Central America, Mexico, and Cuba. Abert, 1848.

29. 140. *Querquedula discors* (Linn.) Blue-winged Teal. A summer resident in suitable localities, but chiefly migratory; abundant. Ranges over North America to about latitude 60° north, but is not common west of the Rocky mountains. Breeds mostly in the upper austral and transition zones. Snow, 1872.

30. 141. *Querquedula cyanoptera* (Vieill.) Cinnamon Teal. Rather common in the western counties, but rare in eastern Kansas. A western species which is rare east of the plains. Breeds mostly within the United States. Goss, 1883.

31. 142. *Spatula clypeata* (Linn.) Shoveler. A rare summer resident; common in migration. Ranges over the northern hemisphere, breeding on this continent, from Texas to Alaska. Snow, 1872.

32. 143. *Dafila acuta* (Linn.) Pintail. Migratory; common. Breeds in the boreal region and transition zone, north of the United States. An early migrant; February or March. Snow, 1872.

33. 144. *Aix sponsa* (Linn.) Wood Duck. A summer resident, becoming less common as the larger timber disappears from our streams. Ranges over the temperate parts of North America and breeds throughout its range. Nests in hollow trees. Maximilian, 1839.

34. 146. *Aythya americana* (Eyt.) Red-head. A common migrant. Breeds mostly north of the United States. Snow, 1872.

35. 147. *Aythya vallisneria* (Wils.) Canvas-back. Migratory; some years common; others absent. An early migrant; February. Breeds mostly in boreal America. Snow, 1872.

36. 148. *Aythya marila* (Linn.) American Scaup Duck. Migratory; rare. Ranges over North America, but breeds in the boreal parts. Snow, 1872.

37. 149. *Aythya affinis* (Eyt.) Lesser Scaup Duck. Migratory; much more common than the last. Belongs to North America in general, but breeds north of the United States. Snow, 1872.

38. 150. *Aythya collaris* (Donov.) Ring-necked Duck. A common migrant. Ranges the whole of North America, but breeds chiefly in the transition zone. Snow, 1872.

39. 151. *Clangula clangula americana* (Bonap.) American Golden-eye. migratory; rare. North America in general, but breeds chiefly north of the United States. Snow, 1872.

40. 153. *Charitonetta albeola* (Linn.) Buffle-head. Migratory; sometimes common. Ranges North America in general. Breeds from northern United States to the arctic circle. Snow, 1872.

41. 166. *Oidemia perspicillata* (Linn.) Surf Scoter. A rare visitor. Ranges over all of North America, but chiefly along the seacoasts. Breeds far north. A single specimen was taken on the Kansas river near Lawrence, October 29, 1887, by Mr. A. L. Bennett, of Emporia. Reported by him. Auk, vol. V, 1888, p. 203.

42. 161. *Somateria v-nigra* Gray. Pacific Eider. Accidental in Kansas. Taken near Lawrence by A. L. Weidman, 1892, and reported by Professor Snow. Auk, vol. IX, p. 198.

43. 167. *Erismatura rubida* (Wils.) Ruddy Duck. A rare summer resident; common in migration. Ranges throughout North America but breeds chiefly northward. Snow, 1872.

44. 169. *Chen hyperborea* (Pall.) Lesser Snow Goose. Abundant in migration. Inhabits western North America east to the Mississippi valley. Breeds far north. Snow, 1872.

45. 169.1. *Chen caerulescens* (Linn.) Blue Goose. A rare migrant. Inhabits the interior of North America east of the Rocky mountains. Breeds on the shores of Hudson bay. Snow, 1878.

46. 171a. *Anser albifrons gambeli* (Hartl.) American White-fronted Goose. Common in migration. Breeds far north, and retires south to Mexico and Cuba in winter. Snow, 1872.

47. 172. *Branta canadensis* (Linn.) Canada Goose. Once summer resident; now a common migrant. A few remain in winter unless ice covers all our rivers. They breed from about latitude 40° northward to the Arctic ocean. Lewis and Clarke met with many goslings, probably of this species, on the Missouri river above the present city of Atchison. Maximilian, prince of Wied, found the Canada goose breeding near the same place in 1834. First reported from the state by Maximilian, 1839.

48. 172a. *Branta canadensis hutchinsii* (Sw. & Rich.) Hutchins's Goose. Migratory; common. Habits and distribution similar to the Canada goose, except that this species breeds further north than the last mentioned. Snow, 1872, on authority of Baird.

49. 173. *Branta bernicla* (Linn.) Brant. A rare accidental migrant. Its usual range is near the Atlantic coast. It breeds within the arctic circle. There have been several authentic instances of its occurrence in this state. Snow, 1872.

50. 180. *Olor columbianus* (Ord.) Whistling Swan. Migratory; rare. Ranges the whole of North America, breeding far northward. Snow, 1872.

51. 181. *Olor buccinator* (Rich.) Trumpeter Swan. Migratory; more common than the last named. Habits and range the same, except that it breeds farther south. Snow, 1872.

52. 187. *Plegadis guarauna* (Linn.) White-faced Glossy Ibis. A rare visitor. A bird of the western slope, first taken near Lawrence by W. L. Bullene in the fall of 1879. Reported to Colonel Goss by Professor Snow. First published report seems to be in Goss's Catalogue, first edition, 1883. Other captures have been at Wichita, October 17, 1890, by Doctor Mathews, and near McPherson, April 29, 1891, by J. W. Blair.

53. 188. *Tantalus loculator* (Linn.) Wood Ibis. Irregular summer visitor; rare. A bird of the tropical and lower austral regions, occurring casually in the

upper austral zone. Reported to Colonel Goss in the spring of 1883, by Dr. Geo. Lisle, as occurring near Chetopa. Observed by Doctor Watson at Ellis, March 26, 1885. Goss, 1883.

54. 190. *Botaurus lentiginosus* (Montag.) American Bittern. Summer resident; not uncommon. Ranges over all of temperate and tropical North America. Breeds in marshes and swamps, nesting on the ground. Snow, 1872.

55. 191. *Ardetta exilis* (Gmel.) Least Bittern. Summer resident; not rare. Ranges over all of temperate North America and tropical America south to Brazil. Nests in dense swamps. Snow, 1872.

56. 194. *Ardea herodias* (Linn.) Great Blue Heron. Summer resident; common along our streams. Ranges over all of North America except the treeless regions. Builds its nest in trees, usually in communities. Snow, 1872.

57. 196. *Ardea egretta* (Gmel.) American Egret. A summer visitor; not rare. Ranges from the British provinces in the north to Chili in the south. Breeds in the United States chiefly in the lower austral zone. Young birds in July and August wander up our rivers further north, but they soon retire to their tropical winter home. Baird, 1858.

58. 197. *Ardea candidissima* (Gmel.) Snowy Heron. A summer visitor; not rare. Arrive from the south in July and August and stay but a short time. Nest chiefly in the warmer parts of North America, the summer visitors at the north being flocks containing mostly young birds in first plumage. First taken by E. U. Prentice, at Topeka, August 15, 1872. Reported by Snow, 1873.

59. 200. *Ardea cærulea* Linn. Little Blue Heron. A summer visitor; rare. After nesting in tropical and lower austral zones, the families, old and young together, often wander northward for a short time. They are very rare west of the Mississippi valley. First taken in Kansas by Colonel Goss, at Neosho Falls, and reported by Snow, 1875.

60. 201. *Ardea virescens* (Linn.) Green Heron. Summer resident; common. Their summer range seems to extend to most parts of the northern United States and into southern Canada. They winter in the Southern states and southward. Baird, 1858.

61. 202. *Nycticorax nycticorax nævius* (Bodd.) Black-crowned Night Heron. Summer resident; not very common because the state has few marshy districts suitable for their feeding-grounds. They range over nearly the whole of America, except the arctic regions, and breed in their favorite haunts throughout their United States range. Snow, 1872.

62. 203. *Nycticorax violaceus* (Linn.) Yellow-crowned Night Heron. Summer resident; rare. Range over tropical and subtropical America. Breed northward to about 40° north latitude and wander casually further north. Taken by Colonel Goss, April 17, 1878, and reported by Professor Snow, 1878.

63. 204. *Grus americana* (Linn.) Whooping Crane. Migratory; irregular, but usually rare. They were much more abundant before the settlement of the state. Its range is east of the Rocky mountains and mostly in the great interior valley. Breeds from latitude 40° north to Great Slave lake. Gregg, 1844. Abert, 1848.

64. 205. *Grus canadensis* (Linn.) Little Brown Crane. Migratory; rather common. Ranges and breeds farther north than the last species, and is more frequent nearer the coast. Goss, 1890.

65. 206. *Grus mexicana* (Müll.) Sandhill Crane. Migratory; common. Ranges through the lower and upper austral and transition zones, from the Mississippi westward to the Pacific coast. Breeds throughout its range. Gregg, 1844.

66. 208. *Rallus elegans* (Aud.) King Rail. Summer resident; common in the few marshes of the state. Ranges throughout the upper and lower austral zones as far west as the mountains. Breeds in this range. Occurs casually in the transition zone. Snow, 1872.

67. 212. *Rallus virginianus* (Linn.) Virginia Rail. Summer resident; rare. Common in migration. Its geographical range is temperate North America, and southward in winter. Nests in marsh lands. Snow, 1872.

68. 214. *Porzana carolina* (Linn.) Sora. Summer resident; rare. Abundant in migration. Inhabits the whole of temperate North America, breeding mostly in the northern parts. Retires to Central and South America during the winter. Snow, 1872.

69. 215. *Porzana noveboracensis* (Gmel.) Yellow Rail. A rare summer resident. Ranges over the greater part of North America, except the arctic region and the mountains. First taken in Kansas by Prof. L. L. Dyche near Lawrence, April 18, 1885. Goss, 1886.

70. 216. *Porzana jamaicensis* (Gmel.) Black Rail. A rare summer resident. Belongs to temperate North America, except the mountains; south to Chili. Taken at Neosho Falls by Colonel Goss, May 3, 1879. Nest with eight eggs found at Manhattan, June, 1880. Goss, 1880.

71. 218. *Ionornis martinica* (Linn.) Purple Gallinule. A very rare visitant. Found in the southeastern part of the United States, casually north to New York and Massachusetts, and west to Kansas. Only one record for this state—Manhattan, April 14, 1893. Lantz, Auk, vol. X, 1893.

72. 219. *Gallinula galeata* (Licht.) Florida Gallinule. A rare summer resident. Ranges over tropical America and temperate North America. Breeds in the Southern states, but chiefly in the Mississippi valley, between latitudes 40 and 50°. Snow, 1872, on authority of Baird.

73. 221. *Fulica americana* (Gmel.) American Coot. Summer resident, not uncommon where there are ponds. An abundant migrant. Ranges over the whole of North America, except the arctic regions, and south to the northern part of South America. Maximilian, 1839.

74. 223. *Phalaropus lobatus* (Linn.) Northern Phalarope. A rare migrant. Breeds in the arctic regions—Greenland, Iceland, Alaska, and the northern parts of Asia and Europe. South in winter to Central America. Goss, 1883. B. N. O. C., vol. VIII, p. 186.

75. 224. *Phalaropus tricolor* (Vieill.) Wilson's Phalarope. A rare summer resident; common in migration. Ranges north to the middle of the British provinces and south to Brazil. Breeds chiefly in the interior and north of Kansas. Colonel Goss found them nesting on Crooked creek in Meade county. Coues, 1865. Ibis, vol. I, second series.

76. 225. *Recurvirostra americana* (Gmel.) American Avocet. A rare summer resident in western Kansas. Common in migration throughout the state. In summer, ranges north to the borders of the arctic region, breeding from Texas

northward to the limits of its range, chiefly on the high interior plains. In winter it retires southward to the Central American states. Abert, 1848.

77. 226. *Himantopus mexicanus* (Müll.) Black-necked Stilt. A rare summer resident in western Kansas. Ranges in summer through the lower austral, upper austral, and transition zones, reaching the Canadian zone. Breeds chiefly in the interior parts of its range. Rare on both coasts, except in Florida. Winters southward to the equator. Seen by W. H. Gibson near Lakin, on the Arkansas river, June, 1881. Goss, 1886.

78. 228. *Philohela minor* (Gmel.) American Woodcock. An occasional summer resident; not uncommon in eastern Kansas during migration. Eastern United States, north to Canada, and west to the plains. Breeds throughout its range. At Manhattan, I have seen three specimens, in February or November, during a residence of nineteen years. Colonel Goss found them breeding near Neosho Falls in 1874. Snow, 1872.

79. 230. *Gallinago delicata* (Ord). Wilson's Snipe. Migratory; common. Ranges the whole of North America, breeding mainly north of latitude 42°. South in winter to central and northern South America. Snow, 1872.

80. 232. *Macrorhamphus scolopaceus* (Say). Long-billed Dowitcher. Migratory; common. North America, except the northeastern part. Breeds in the arctic zone. South in winter to northern South America. Snow, 1872, on authority of Brewer.

81. 233. *Micropalama himantopus* (Bonap.) Stilt Sandpiper. A rare migrant. Ranges over eastern North America to the Rocky mountains. South in winter to Brazil. Breeds in the far north. Taken at Lawrence, September, 1874, by Wm. Osburn. Also taken by Colonel Goss on several occasions. Snow, 1875.

82. 234. *Tringa canutus* (Linn.) Knot. Migratory; rare. A bird of wide range. In summer, found chiefly along the seacoasts of the northern hemisphere; in winter, nearly throughout the southern hemisphere. Breeds mostly in the arctic zone. Colonel Goss says: "Two specimens shot in the spring of the year, at Neosho Falls, by Col. W. L. Parsons, are the only ones to my knowledge captured or seen in the state." Birds of Kansas, p. 167. Snow, 1872. [?]

83. 239. *Tringa maculata* (Vieill.) Pectoral Sandpiper. Migratory; abundant. Ranges the greater part of America, but breeds chiefly in the arctic and Hudsonian zones. Coues, 1871.

84. 240. *Tringa fuscicollis* (Vieill.) White-rumped Sandpiper. A common migrant. Range and breeding area the same as the last named. Coues, 1865.

85. 241. *Tringa bairdii* (Coues). Baird's Sandpiper. Migratory; common. Ranges over the greater part of America, being more common in the interior parts. Breeds along the arctic shores, and retires south in winter to the Argentine Republic and Chili. Snow, 1872, on authority of Baird.

86. 242. *Tringa minutilla* (Vieill.) Least Sandpiper. Migratory; very common. Ranges over the whole of America, breeding in the arctic and Hudsonian zones. Snow, 1872.

87. 243a. *Tringa alpina pacifica* (Coues). Red-backed Sandpiper. A rare migrant. Ranges over the whole of North America and eastern Asia. Breeds in the arctic regions. First reported from Kansas by Snow, on authority of Dr. J. A. Allen; but Doctor Allen now writes me that he took this species only in

the Great Salt Lake valley, and not in Kansas. Colonel Goss met with it in this state, and reported it on his own authority. Goss, 1883.

88. 246. *Ereunetes pusillus* (Linn.) Semipalmated Sandpiper. A migrant; not common. A bird of the eastern United States, west to the Rocky mountains; south in winter to the West Indies and South America. Breeds in the arctic and Hudsonian zones. Coues, 1865.

89. 248. *Calidris arenaria* (Linn.) Sanderling. Migratory; very rare. A bird very widely distributed on both continents. Breeds in the arctic regions. Only one record of its occurrence in Kansas. Taken at Lawrence, October 7, 1874, by W. E. Stevens, and reported by Professor Snow, 1875.

90. 249. *Limosa fedoa* (Linn.) Marbled Godwit. Migratory; common. It inhabits nearly all of North America, breeding chiefly in the transition zone and northward. Winters southward to Cuba and Central America. Snow, 1872.

91. 251. *Limosa hæmastica* (Linn.) Hudsonian Godwit. Migratory; rare. Ranges over the greater part of America, but breeds in the arctic zone. Snow, 1872, on authority of Baird.

92. 254. *Totanus melanoleucus* (Gmel.) Greater Yellow-legs. A common migrant. Ranges over nearly the whole of America. Breeds mostly in the Hudsonian, Canadian and transition zones. Snow, 1872.

93. 255. *Totanus flavipes* (Gmel.) Yellow-legs. An abundant migrant. Ranges over North America. Breeds in the northern part of the transition zone and in the boreal zones. Occurs south in winter to the Argentine Republic. Snow, 1872.

94. 256. *Helodromus solitarius* (Wils.) Solitary Sandpiper. A common migrant. Ranges over temperate North America, breeding in the northern part. South in winter to Peru and Brazil. Baird, 1858.

95. 258a. *Symphemia semipalmata inornata* (Brewst.) Western Willet. Not common. Probably breeds in western Kansas. A western subspecies which ranges east to the Mississippi valley and south Atlantic states. Breeds throughout its United States range, but chiefly westward. Winters in Mexico. Snow, 1872. Reported as the Willet, the subspecies not having been recognized until recently.

96. 261. *Bartramia longicauda* (Bechst.) Bartramian Sandpiper. An abundant summer resident. Belongs to eastern and central North America, west to Utah. Winters south to the equator. Breeds from southern Kansas north to the edges of the arctic zone. Kelly, 1851.

97. 262. *Tryngites subruficollis* (Vieill.) Buff-breasted Sandpiper. A rare migrant. Inhabits all of North America, especially the interior. Breeds in the Arctic zone. Winters south to the Argentine Republic. Snow, 1872.

98. 263. *Actitis macularia* (Linn.) Spotted Sandpiper. A common summer resident; abundant in migration. Ranges throughout North America; breeding from the upper austral zone northward to the arctic coast. Winters in South America. Snow, 1872.

99. 264. *Numenius longirostris* (Wils.) Long billed Curlew. A rare summer resident; common in migration. Inhabits temperate North America; breeding from the Gulf of Mexico northward through the transition zone. Winters in Mexico, the West Indies, and Central America. Allen found it breeding in western Kansas. Abert, 1848.

100. 265. *Numenius hudsonicus* (Lath.) Hudsonian Curlew. A rare migrant. Found in nearly all parts of America, breeding from the northern part of the United States to the arctic coast. Winters mostly south of the United States. Snow, 1872, on authority of Baird.

101. 266. *Numenius borealis* (Forst.) Eskimo Curlew. An abundant migrant, but rarely seen in fall migration. They belong rather to eastern North America, breeding far northward; south in winter to Patagonia. Allen, 1872, in *American Naturalist*. But Doctor Allen says that the record was made in error; consequently, the earliest authentic record of its occurrence in Kansas becomes Benson, 1874, *Forest and Stream*, vol. 2.

102. 270. *Charadrius squatarola* (Linn.) Black-bellied Plover. A rare migrant. They range over both continents, but mostly in the northern hemisphere. They breed in the far north and winter near the equator. Snow, 1872, on authority of Baird.

103. 272. *Charadrius dominicus* (Müll.) American Golden Plover. A common migrant. Range the greater part of America; breed in the arctic regions; winter south to Patagonia. Not common west of the Rocky mountains. Abert, 1848.

104. 273. *Ægialitis vocifera* (Linn.) Kill-deer. A common summer resident; abundant in migration. Inhabits all of temperate North America; breeding throughout this range. During the winter it retires south to the Gulf coast, California, Mexico, and beyond. Arrives from the south very early in the spring. Abert, 1848.

105. 274. *Ægialitis semipalmata* (Bonap.) Semipalmated Plover. Migratory; not very common. Ranges through all of North America, breeding far northward. Winters from California and the Gulf coast south to Brazil. Snow, 1872.

106. 277a. *Ægialitis meloda circumcincta* (Kidw.) Belted Piping Plover. Migratory; rare. They range over the Mississippi valley north to Winnipeg. Breed from Nebraska northward. Snow, 1872, on authority of Baird. Colonel Goss had no record of their actual capture in Kansas.

107. 278. *Ægialitis nivosa* (Cass.) Snowy Plover. A summer resident in southwestern Kansas. A western species, ranging north to northern California and east to Kansas, Oklahoma, and Texas. Winters in South America. Goss, 1886. Taken by him on the south line of Comanche county. "Auk," vol. III, p. 409.

108. 281. *Ægialitis montana* (Townsend.) Mountain Plover. A common summer resident in the western half of the state. Belongs to western North America, ranging east to middle Kansas, Texas, and Dakota, and north to British America. Breeds on the plains. Winters in the southern United States and southward. Allen, 1872.

109. 289. *Colinus virginianus* (Linn.) Bob-white. Resident; abundant in the eastern half of the state and becoming more plentiful westward. A bird of the eastern United States, ranging west to Dakota, Kansas, and Texas. Say found them on the Arkansas river (Long's Report, 1823), but it is possible that his birds may have been the next form. Maximilian, 1839, and Parkman, 1849, reported them in eastern Kansas.

110. 289b. *Colinus virginianus texanus* (Lawr.) Texas Bob-white. Resident; possibly still occurs in southwestern Kansas. Inhabits northeastern Mex-

ico and western Texas, north to Kansas. The evidence of its occurrence in Kansas rests upon the two specimens in the United States National Museum, taken by Dr. Elliott Coues on the Republican river, May 27, 1864. Goss, "Birds of Kansas," 1891, p. 222. A. O. U. Check-list, 1886.

111. 300. *Bonasa umbellus* (Linn.) Ruffed Grouse. A resident in eastern Kansas before the settlements; now very rare. A pair wintered on Cedar creek, north of Manhattan, a few years since, but were shot by a farmer in the early spring. Snow, 1872.

112. 305. *Tympanuchus americanus* (Reich.) Prairie Hen. Formerly abundant and still moderately common in the middle section of the state. Decreasing in numbers, because of their wanton destruction by gunners, and more especially because of the annual burning of old pastures, when either the eggs or young birds are destroyed. These birds are migratory in the north, but in Kansas they do not move many miles from their breeding-grounds. Say, 1823.

113. 307. *Tympanuchus pallidicinctus* (Ridgw.) Lesser Prairie Hen. A rare resident in southern Kansas. This species has a limited range in Kansas, the Indian Territory, Oklahoma, and western Texas. A pair taken at Neosho Falls is in the Goss collection. Goss, 1883.

114. 308b. *Pediæcetes phasianellus campestris* (Ridgw.) Prairie Sharp-tailed Grouse. Resident in the western part of the state; common. This subspecies belongs to the plains and prairies east of the Rocky mountains. It ranges east almost to the Mississippi, north to the British possessions, and south to New Mexico. Allen, 1872.

115. 310a. *Meleagris gallopavofera* (Vieill.) Wild Turkey. An abundant resident of the state when first settled. It is now very rare, occurring only in the hilly parts of southwest Kansas. Found in the state by nearly all the early explorers. Pike, 1810; Lewis and Clarke, 1814; Say, 1823; Maximilian, 1839.

116. 315. *Ectopistes migratorius* (Linn.) Passenger Pigeon. A rare summer resident. Colonel Goss found them breeding occasionally in the Neosho valley. This species, once so abundant all over eastern North America, is now nearly extinct. Snow, 1872.

117. 316. *Zenaidura macroura* (Linn.) Mourning Dove. An abundant summer resident. Found in all of temperate North America, breeding throughout the United States, and retiring southward somewhat in winter. A few remain through the winter even in northern Kansas. Abert, 1848.

118. 325. *Cathartes aura* (Linn.) Turkey Vulture. Summer resident; abundant. Sometimes seen in winter. A widely distributed American bird, breeding from the northern limits of the transition zone south to Patagonia. Maximilian, 1839.

119. 326. *Catharista urubu* (Vieill.) Black Vulture. Summer resident; rare. It was undoubtedly common in the state before the settlement, and especially in the years when buffalo were slaughtered in large numbers. Parkman saw them in company with the turkey vulture. California and Oregon Trail, 1849. Seen at Chetopa, 1882, by Dr. Geo. Lisle. Taken at Ellis, March 27, 1885, by Dr. Lewis Watson.

120. 327. *Elanoides forficatus* (Linn.) Swallow-tailed Kite. An irregular summer resident of eastern Kansas. Rather common in the wooded parts of the lower austral zone, but rare in the upper austral. Retires southward in winter. Abert, 1848.

121. 329. *Ictinia mississippiensis* (Wils.) Mississippi Kite. A summer resident in southwest Kansas. Rare in the other parts of the state. Breeds in the lower austral zone. Occurs casually further north; south to Central America. Found breeding on the Medicine river, in Barber county, by Colonel Goss, in the spring of 1887. Snow, 1872, on authority of Baird.

122. 331. *Circus hudsonius* (Linn.) Marsh Hawk. A common resident. Probably the most abundant as well as the most useful of our hawks. Inhabits the whole of North America. South in winter to Panama. Breeds from the lower austral zone northward to the arctic zone. Maximilian, 1839.

123. 332. *Accipiter velox* (Wils.) Sharp-shinned Hawk. A rare winter sojourner; common in migration. Not positively known to breed in this state, although they have been found nesting in Texas. Breed chiefly in the transition zone and northward. South in winter to Panama. Snow, 1872.

124. 333. *Accipiter cooperi* (Bonap.) Cooper's Hawk. Resident; common in summer and found in winter. Range over all of temperate North America, wintering southward to southern Mexico. Breed in most of the wooded parts of the United States. Snow, 1872.

125. 334. *Accipiter atricapillus* (Wils.) American Goshawk. A rare winter visitant. Belongs to northern and eastern North America; west to the Rocky mountains. Breeds in the Canadian and Hudsonian zones. Snow, 1872.

126. 337. *Buteo borealis* (Gmel.) Red-tailed Hawk. A common resident. Belongs to eastern North America, extending westward to the plains. A beneficial hawk, as are all the Buteos. Abert, 1848.

127. 337a. *Buteo borealis kriderii* (Hoopes). Krider's Hawk. Probably a resident in western Kansas; rare. A bird of the plains, ranging from southern Texas to Minnesota. First taken in Kansas, near Wallace, October 12, 1883, by Colonel Goss, who reported it in the Auk, vol. 1, 1884, p. 100.

128. 337b. *Buteo borealis calurus* (Cass.) Western Red-tail. An irregular winter sojourner; usually rather common. Belongs to western North America, ranging eastward into Kansas and Missouri during the winter. Snow, 1872.

129. 337d. *Buteo borealis harlani* (Aud.) Harlan's Hawk. A rare visitant. There are specimens in the university museum and the Goss collection taken in the state. It has been captured at Manhattan, Lawrence, and Neosho Falls. Is probably more common than has been supposed, since it cannot easily be distinguished from the western red-tail and the rough-legged hawks when seen at a distance. Snow, 1872.

130. 339. *Buteo lineatus* (Gmel.) Red shouldered Hawk. A common resident in the eastern counties of the state. Ranges over eastern North America, from the Gulf to Nova Scotia, and westward to the edge of the plains. Snow, 1872.

131. 342. *Buteo swainsoni* (Bonap.) Swainson's Hawk. Resident; very rare in the eastern part of the state, not uncommon in middle Kansas, and common further west. A bird of western North America which sometimes ranges eastward to Illinois and Wisconsin. It occurs north to the limits of forests and south to the Argentine Republic. Snow, 1872.

132. 343. *Buteo latissimus* (Wils.) Broad-winged Hawk. A rare summer resident in eastern Kansas. Belongs to eastern North America, ranging north to Quebec and Manitoba, west to the edge of the plains, and south in winter nearly to the equator. Snow, 1872.

133. 347a. *Archibuteo lagopus sanctijohannis* (Gmel.) American Rough-legged Hawk. A common winter sojourner. Inhabits the whole of North America north of Mexico, but breeds chiefly north of the United States. Snow, 1872.

134. 348. *Archibuteo ferrugineus* (Licht.) Ferruginous Rough-leg. Resident; rather common in western Kansas, rare in the eastern part. Inhabits western North America, north to the Saskatchewan and south to Mexico; east to Iowa and Texas. Snow, 1875. Taken by Doctor Watson at Ellis, July, 1875. Colonel Goss found them breeding near Wallace, May 27, 1883.

135. 349. *Aquila chrysaëtus* (Linn.) Golden Eagle. A very rare resident; rather common as a winter sojourner. Occurs throughout the northern parts of the northern hemisphere; south on this continent to Mexico. Breeds mainly in the mountains. Maximilian, 1839.

136. 352. *Haliaetus leucocephalus* (Linn.) Bald Eagle. A rare resident; rather common in the winter. Inhabits all of North America, including Greenland and the Aleutian islands. Formerly its nests were not uncommon in Kansas. Say, 1823.

137. 354. *Falco rusticolus* (Linn.) Gray Gyr Falcon. An accidental winter visitor. A bird of the far north. The only specimen known from Kansas was taken near Manhattan, December 1, 1880, by Mr. A. L. Runyan. Reported by Doctor C. P. Blachly in Transactions Academy of Science, vol. VII, 1881, p. 105.

138. 355. *Falco mexicanus* (Schl.) Prairie Falcon. A rare resident; more frequent in the western part of the state. A western species which ranges east to the plains, casually to Illinois, and south into Mexico. Snow, 1872.

139. 356. *Falco peregrinus anatum* (Bonap.) Duck Hawk. Resident; not common. Its breeding range includes mainly the upper austral, transition, and Canadian zones. In winter it passes southward, even to southern South America. The birds noticed in Kansas during the winter are probably from the far north, and not the individuals that breed here. Allen found it nesting in Kansas. American Naturalist, vol. VI. Snow, 1872.

140. 357. *Falco columbarius* (Linn.) Pigeon Hawk. An uncommon migrant and winter sojourner. Colonel Goss shot a specimen at Neosho Falls as late as June 10. Ranges the whole of North America, breeding chiefly in north British America, but found nesting in many localities within the United States. Winters in the southern part of the United States and southward nearly to the equator. Snow, 1872.

141. 358. *Falco richardsonii* (Ridgw.) Richardson's Merlin. Rare in eastern Kansas; not uncommon in western Kansas; migratory. Ranges from the Mississippi river to the Pacific ocean and from Mexico to the arctic shores. More common in the interior. Snow, 1872, on authority of Baird.

142. 360. *Falco sparverius* (Linn.) American Sparrow Hawk. An abundant resident. Inhabits the whole of temperate North America, ranging south in winter to northern South America. The winter specimens in Kansas are probably birds that breed far to the north. Snow, 1872.

143. 364. *Pandion haliaetus carolinensis* (Gmel.) American Osprey. Summer resident; not common. Ranges North America in the breeding season from the lower austral zone to the edge of the arctic zone, south to South America in winter. Snow, 1872.

144. 365. *Strix pratincola* (Bonap.) American Barn Owl. Resident; rather common. Inhabits the greater part of the United States; more common in the South. Found also southward through Mexico. Nest usually in holes in the high, sandy banks of our rivers and creeks. Snow, 1872.

145. 366. *Asio wilsonianus* (Less.) American Long-eared Owl. A common resident. Is found in all of temperate North America: south into Mexico. Not many of the birds winter in Kansas. Snow, 1872.

146. 367. *Asio accipitrinus* (Pall.) Short-eared Owl. Resident; not common. Common in migration. Found over the whole American continent and in many parts of the eastern hemisphere. Breed from the Gulf states northward to within the arctic circle. Found nesting at Neosho Falls and at Beattie, in Kansas. Snow, 1872.

147. 368. *Syrnium nebulosum* (Forst.) Barred Owl. Resident; common. A bird of eastern North America, occurring north to New Brunswick and Manitoba, west to western Kansas, south to Georgia and northern Texas. Replaced westward by the form *S. occidentale*. Snow, 1872.

148. 372. *Nyctale acadica* (Gmel.) Saw-whet Owl. A winter sojourner; not rare. Ranges the United States and the southern part of the British provinces from the Atlantic to the Pacific; on the eastern coast, south to Pennsylvania; in the western mountains, south into Mexico. Breeds mainly in the northern part of its range, except in the mountains. Snow, 1872.

149. 373. *Megascops asio* (Linn.) Screech Owl. A very common resident. Belongs to the eastern part of temperate North America, south to Georgia, and west to the plains. Breeds throughout its range. Snow, 1872.

150. 375. *Bubo virginianus* (Gmel.) Great Horned Owl. A common resident. Inhabits eastern North America, west to the plains, south through eastern Mexico to Costa Rica. Snow, 1872.

151. 375a. *Bubo virginianus subarcticus* (Hoy). Western Horned Owl. A rare resident in western Kansas. Belongs to the western United States; north into British America, south over the higher plateaus of Mexico, and east to western Kansas and Texas. Taken by Colonel Goss, in Rawlins county, October 29, 1885, and reported by him in the *Auk*, vol. III, p. 112.

152. 376. *Nyctea nyctea* (Linn.) Snowy Owl. Winter sojourner; not very common except in the more severe winters. Belongs to the extreme north of both continents, moving southward in the winter. In North America it occurs as far south as the Carolinas and northern Texas. Snow, 1872.

153. 378. *Speotyto cunicularia hypogæa* (Bonap.) Burrowing Owl. Summer resident; abundant in the middle and western parts of the state. The birds may winter in southern Kansas, but in the northern part of the state they rarely appear in spring until the latter part of April. These owls are resident in the southern part of their range, which embraces the western part of North America from the northern United States southward to Guatemala. Say, 1823.

154. 382. *Conurus carolinensis* (Linn.) Carolina Paroquet. Formerly an abundant resident in the eastern parts of the state. Now extinct in Kansas. Still found in small flocks in southern Florida and the Indian territory. Abert, 1848.

155. 385. *Geococcyx californicus* (Less.) Road-runner. An occasional visitant in the western part of the state; may possibly breed. This bird belongs to

the western plains of the United States and to central and northern Mexico. Seen in southwest Kansas, in September, 1884, by Mr. Chas. Dyer. Goss, 1886. Auk, vol. III, p. 112.

156. 387. *Coccyzus americanus* (Linn.) Yellow-billed Cuckoo. A common summer resident. Habitat, eastern North America, west to the edge of the great plain, north to about latitude 47°, and south to Costa Rica. Winters in the southern part of this area. Breeds throughout its range as far south as Cuba. Baird, 1858.

157. 388. *Coccyzus erythrophthalmus* (Wils.) Black-billed Cuckoo. A summer resident, much less common than the last species. Belongs to eastern North America, north to Nova Scotia and Manitoba, west to the foot-hills of the Rocky mountains; south in winter to northern South America. Snow, 1872.

158. 390. *Ceryle alcyon* (Linn.) Belted Kingfisher. A common summer resident, sometimes remaining all the winter. Inhabits the whole of North America; south in winter to Panama and the West Indies. Say, 1823.

159. 393. *Dryobates villosus* (Linn.) Hairy Woodpecker. Resident; not uncommon. Inhabits the middle parts of the United States, from the eastern coast to the base of the Rocky mountains. Breeds throughout its range. Baird, 1858.

160. 394c. *Dryobates pubescens medianus* (Swains.) Downy Woodpecker. Resident; abundant. Inhabits the middle and northern parts of North America, from the Atlantic to the Rocky mountains; casually further west. Breeds throughout its range. Baird, 1858.

161. 402. *Sphyrapicus varius* (Linn.) Yellow-bellied Sapsucker. A rare migrant. Inhabits North America north and east of the Rocky mountains, breeding from the northern parts of the United States northward; ranges south in winter through the Southern states, Mexico, West Indies, and Guatemala. Snow, 1872, on authority of Brewer.

162. 402a. *Sphyrapicus varius nuchalis* (Baird). Red-naped Sapsucker. A rare migrant in western Kansas. The bird belongs to the Rocky mountains, from the northern boundary of the United States south into Mexico. Breeds in the mountains up to 12,000 feet. Colonel Goss met with this species near Wallace on two occasions, first in October, 1883. "Auk," vol. I, p. 100. Goss, 1884.

163. 405. *Ceophlœus pileatus abieticola* (Bangs). Pileated Woodpecker. Resident along heavily timbered streams, each year decreasing in numbers; rare. Belongs to the heavily wooded parts of the eastern United States and British provinces. Baird, 1858.

164. 406. *Melanerpes erythrocephalus* (Linn.) Red headed Woodpecker. A common summer resident. Belongs to the eastern United States, westward to the Rocky mountains and occasionally beyond. Breeds mostly in the northern part of this range and winters in the South. Abert, 1848.

165. 408. *Melanerpes torquatus* (Wils.) Lewis's Woodpecker. A casual visitor in western Kansas. Inhabits the western United States, east to the Black Hills and western Texas. Taken at Ellis by Doctor Watson, May 6, 1878; also taken in Finney county by Menke, April 23, 1893. Snow, 1878. Transactions Kansas Academy of Science, vol. VI, p. 38.

166. 409. *Melanerpes carolinus* (Linn.) Red-bellied Woodpecker. Resident; common. Inhabits the eastern United States to the base of the Rocky moun-

tains. Rare in Florida, southern Texas, and the New England states. Not migratory. Baird, 1858.

167. 412. *Colaptes auratus luteus* (Bangs). Flicker. Resident; common. Inhabits the eastern United States and British America; north to Hudson bay and west to the Rocky mountains; Alaska. Abert, 1848.

168. 413. *Colaptes cafer* (Gmel.) Red-shafted Flicker. Resident in western Kansas; common in winter throughout the state. A bird of the western United States, except the northwest coast and southern California; south into southern Mexico. Snow, 1873; Benson, 1874.

169. 417. *Antrostomus vociferus* (Wils.) Whippoorwill. A rare summer resident; common in the eastern counties in migration. Belongs to the eastern United States and British America, north to Nova Scotia and Manitoba, west to the plains; south in winter to Guatemala. Lewis and Clarke, 1814. Implied also in Goss's Narrative, 1809. Parkman, 1849.

170. 418. *Phalænoptilus nuttalli* (Aud.) Poor-will. A common summer resident. Inhabits the western United States, east into Iowa and Missouri; south into Mexico. Coues, 1865.

171. 418a. *Phalænoptilus nuttalli nitidus* (Brewst.) Frosted Poor-will. A summer resident; not rare. Taken at Neosho Falls, 1881, by Colonel Goss; also near Manhattan, where three fully identified sets of their eggs have been found. Goss, 1890. "Auk," vol. VII, p. 286.

172. 420. *Chordeiles virginianus* (Gmel.) Night Hawk. A common summer resident in the eastern half of the state; replaced in the western part by the next form. Its geographical range includes eastern North America, north to Hudson bay, west to the edge of the great plains; south in winter to the West Indies, Central America, and northeastern South America. Abert, 1848.

173. 420a. *Chordeiles virginianus henryi* (Cass.) Western Night Hawk. A common summer resident in western Kansas. Belongs to the western United States; south in winter into Mexico. Coues, 1865. Ibis.

174. 423. *Chætura pelagica* (Linn.) Chimney Swift. Summer resident; abundant in eastern Kansas, and increasing in numbers westward. Belongs to eastern North America, north to Labrador and Manitoba, west to the edge of the plains; south in winter through Mexico. Snow, 1872.

175. 428. *Trochilus colubris* (Linn.) Ruby-throated Humming-bird. Summer resident; not common. Abundant in migration in eastern Kansas. Belongs to eastern North America, west to the plains, north to the Hudsonian zone; south in winter to Cuba and Mexico. Baird, 1858.

176. 443. *Milvulus forficatus* (Gmel.) Scissor-tailed Flycatcher. Summer resident in southern Kansas; common. Belongs to eastern Mexico and the southwestern United States (Texas, Indian Territory, Oklahoma, south Kansas, southern Missouri, etc.); south in winter to Costa Rica. The first authentic record for Kansas is its capture at Neodesha, May 13, 1875, by Colonel Goss. The specimens seen by Say on the Arkansas river were noted a short distance south of the Kansas line. The report by Snow, 1872, on authority of Baird, that this species was taken near Fort Riley by Doctor Coues was based upon some error. Doctor Coues writes me that he never saw a live scissor-tailed flycatcher anywhere. Snow, 1875.

177. 444. *Tyrannus tyrannus* (Linn.) Kingbird. An abundant summer resident. Belongs to temperate North America; not common west of the Rocky mountains. Ranges south in winter to the equator. Abert, 1848.

178. 447. *Tyrannus verticalis* (Say). Arkansas Kingbird. A common summer resident in the western half of the state. Belongs to the western United States, east to the eastern border of the great plains; south in winter to Guatemala. Snow, 1872, on authority of Brewer.

179. 452. *Myiarchus crinitus* (Linn.) Crested Flycatcher. An abundant summer resident in eastern Kansas. Inhabits the eastern United States and British America, to New Brunswick and Manitoba, west to the plains; south in winter to Costa Rica. Coues, 1871.

180. 456. *Sayornis phoebe* (Lath.) Phoebe. A common summer resident in eastern Kansas. Ranges over eastern North America, north to New Brunswick and Manitoba, west to eastern Colorado, south to Cuba and eastern Mexico. Winters from the Gulf coast southward. Abert, 1848.

181. 457. *Sayornis saya* (Bonap.) Say's Phoebe. Summer resident in western Kansas; common. A bird of the western United States, north to the Saskatchewan, east to Dakota and middle Kansas, south into middle Mexico. First taken in Kansas by Prof. E. A. Popenoe, July, 1875, in Rooks county. Snow, 1875.

182. 459. *Contopus borealis* (Swains.) Olive-sided Flycatcher. Summer resident; rare. In migration, not common. Belongs to northern North America. Ranges south in winter along the mountains to Costa Rica. Found breeding by Colonel Goss near Wallace, May 27, 1883. Snow, 1872, on authority of Brewer.

183. 461. *Contopus virens* (Linn.) Wood Pewee. A common summer resident in the wooded parts of the state. Belongs to eastern North America, ranging north to New Brunswick and Manitoba, west to the edge of the plains; south in winter through eastern Mexico to Panama. Coues, 1871.

184. 462. *Contopus richardsonii* (Swains.) Western Wood Pewee. A rare summer resident in western Kansas. Belongs to western North America, ranging north to British Columbia and Manitoba, east to Nebraska and Texas; south in winter to Costa Rica. This species was included in Snow's first and second editions, but evidently upon insufficient evidence, for it was omitted from the third edition, 1875. Goss, 1883.

185. 465. *Empidonax acadicus* (Gmel.) Acadian Flycatcher. A summer resident in eastern Kansas; not rare in suitable localities. A bird of the eastern United States, ranging north to Manitoba, west to the plains, and south in winter to northern South America. Allen, 1872. Bull. Mus. Comp. Zoöl.

186. 466a. *Empidonax pusillus traillii* (Aud.) Traill's Flycatcher. Summer resident; not common. In migration, common. Inhabits eastern North America to the plains, north to Manitoba; south in winter nearly to the equator. Found breeding in Marshall county by Geo. F. Breninger. Snow, 1872.

187. 467. *Empidonax minimus* (Baird). Least Flycatcher. A common migrant in eastern Kansas. Its geographical range is eastern temperate North America, west to the base of the Rocky mountains; south in winter to Panama. Snow, 1872.

188. 474a. *Otocoris alpestris leucolæma* (Coues). Pallid Horned Lark. A winter sojourner; common during extremely cold weather. A northern race,

which is found so far south only in winter. Its inclusion on the Kansas list is based upon numerous specimens taken at Manhattan, and upon some Fort Riley specimens in the National Museum. Dwight, 1890. The Auk, vol. VII, p. 138.

189. 474b. *Otocoris alpestris praticola* (Hensh.) Prairie Horned Lark. Resident in eastern Kansas; common. Inhabits the upper Mississippi valley and region of the Great Lakes, west to central Dakota, Nebraska, and Kansas; south in winter nearly to the Gulf. Baird, 1858.

190. 474c. *Otocoris alpestris arenicola* (Hensh.) Desert Horned Lark. Resident in middle and western Kansas; common. Inhabits the great plains, Rocky mountains, and great basin, north into the British provinces, south to about latitude 34°. Goss, 1883.

191. 475. *Pica pica hudsonica* (Sab.) American Magpie. Once a rare resident; now a rare fall and winter visitant. Inhabits western North America, except California; north to Alaska, east to edge of the plains, south to Arizona. The evidence upon which Colonel Goss included it as a former resident is given in his catalogue, 1886, page 35. Doctor Allen says that he did not find this species breeding in Kansas, as reported by Snow in the second edition of his catalogue. Doctor Allen's record was for Colorado, and was inadvertently given by him as for Kansas. Snow, 1872.

192. 477. *Cyanocitta cristata* (Linn.) Blue Jay. Resident; abundant in summer, and hardly common in winter. Found in wooded portions of the state and about plantations; rare in western Kansas. Inhabits the eastern United States, except Florida, north to the Hudsonian zone, west to the plains. Winters from about latitude 40° southward to the Gulf. Abert, 1848.

193. 486. *Corvus corax sinuatus* (Wagl.) American Raven. Formerly a resident; now probably only a rare visitant in the state. A bird of the West, from British Columbia south to Guatemala. Say, 1823.

194. 487. *Corvus cryptoleucus* (Couch). White-necked Raven. A rare resident in western Kansas; common in late fall and winter, but decreasing in numbers as the settlements increase. Its geographical range includes the southwestern United States and northern Mexico; east to western Texas, Oklahoma, and Kansas; north to Colorado, southern Utah, and southern California. Breeds throughout its range. Taken by H. H. Wright, in Phillips county, July 28, 1875. Snow, 1875.

195. 488. *Corvus americanus* (Aud.) American Crow. An abundant resident in the timbered parts of the state. In winter, it sometimes collects in large roosts in eastern Kansas. Its geographical range includes the timbered sections of North America, from the Hudsonian zone to Mexico. Say, 1823.

196. 491. *Picicorvus columbianus* (Wils.) Clark's Nutcracker. An accidental visitant. The bird belongs to the mountainous coniferous forests of western North America, from Arizona north to Alaska. Their occurrence in Nebraska, Dakota, and Kansas is accidental. Taken near the south line of Marshall county, August 13, 1888, by Chas. Netz. Also taken on the Neosho river, October 9, 1891, by R. Evans (Collette). Goss, 1889. Auk, vol. VI, p. 123.

197. 492. *Cyanocephalus cyanocephalus* (Wied.) Piñon Jay. A rare visitant. Three specimens were captured near Lawrence by Stephens and Challis, October 23, 1875. A bird of the western mountains, ranging from British America south into Mexico. Snow, 1875.

198. 494. *Dolichonyx oryzivorus* (Linn.) Bobolink. A very rare summer resident; common in migration. Belongs to eastern North America, ranging north to the Hudsonian zone, west to the high plains; south in winter to South America. Say, 1823 (probably an error). Snow, 1872.

199. 495. *Molothrus ater* (Bodd.) Cowbird. An abundant summer resident. Breeds throughout the lower austral, upper austral, and transition zones. Ranges south in winter to southern Mexico. Say, 1823.

200. 497. *Xanthocephalus xanthocephalus* (Bonap.) Yellow-headed Blackbird. Summer resident; not uncommon in western Kansas; common throughout the state in migration. It ranges through western North America from the central Mississippi valley west to the Pacific coast; south into Mexico and Cuba. Probably nests in suitable localities—marshes—throughout its United States range. Maximilian, 1839.

201. 498. *Agelaius phoeniceus* (Linn.) Red-winged Blackbird. An abundant summer resident. Seen rarely in winter. Inhabits temperate North America, except western Mexico and the lower Colorado valley, north to Great Slave lake, south to Costa Rica. Baird, 1858.

202. 501. *Sturnella magna* (Linn.) Meadow-lark. Resident; abundant in the eastern part of the state. Inhabits eastern North America, north to Nova Scotia and Ontario, west to the plains. Breeds throughout this range. Abert, 1848.

203. 501b. *Sturnella magna neglecta* (Aud.) Western Meadow-lark. Resident; abundant in middle and western Kansas. The bulk of the species move southward in winter. A bird of western North America, north to British Columbia and Manitoba, east to Kansas and Nebraska, south to southern Mexico. Abert, 1848.

204. 506. *Icterus spurius* (Linn.) Orchard Oriole. An abundant summer resident. Belongs to the eastern United States, ranging west to the foot-hills of the Rocky mountains; south in winter to Panama. Baird, 1858.

205. 507. *Icterus galbula* (Linn.) Baltimore Oriole. A common summer resident. Ranges over eastern North America, north to New Brunswick and Manitoba, west to the foot-hills of the Rocky mountains; south in winter to Panama. Abert, 1848.

206. 508. *Icterus bullocki* (Swains.) Bullock's Oriole. Summer resident; extremely rare. Included in this list on the statement of Dr. S. W. Williston that he captured this species while collecting in western Kansas, the skins being given to the museum of Yale. This species has been included in all former catalogues of Kansas birds on the authority of Professor Snow's first list. Professor Snow included it in his third edition, 1875, on the authority of Doctor Williston, but did not so credit it. Meanwhile, the entire lack of authentic specimens taken in the state had made Colonel Goss and others reluctant to include the bird in catalogues. The record of its occurrence at Manhattan, in 1883, as given in Professor Cooke's Migration in the Mississippi Valley, was an error of identity, which was duly corrected; but in some manner it crept into the final report. This is a western species which sometimes ranges east to Dakota, Kansas, and western Texas; south in winter to central Mexico. I permit Snow, 1872, to stand.

207. 509. *Scolecophagus carolinus* (Müll.) Rusty Blackbird. A winter sojourner; rare except in the eastern counties. Belongs to eastern and northern

North America. Breeds over the greater part of British America (except British Columbia). South in winter to the Gulf of Mexico. Snow, 1872, on authority of Doctor Brewer.

208. 510. *Scolecophagus cyanocephalus* (Wagl.) Brewer's Blackbird. An occasional resident in western Kansas. Migratory throughout the state; common. Has been seen in winter. A western species; north to the Saskatchewan, east to Minnesota and Texas; south in winter to Mexico. Baird, 1858.

209. 511b. *Quiscalus quiscula æneus* (Ridgw.) Bronze Grackle. An abundant summer resident; occasional in winter. A bird of the Mississippi valley, north to Hudson's bay and the Saskatchewan, west to the Rocky mountains; south to the Gulf coast in winter; occasional east of the Alleghenies. Abert, 1848.

210. 514a. *Coccothraustes vespertinus montanus* (Ridgw.) Western Evening Grosbeak. A rare winter visitant. Belongs to western North America, north to British Columbia and the Saskatchewan, east to the eastern edge of the great plains. Breeds mainly in the north and in the mountains. Taken by Doctor Watson, at Ellis, in November, 1875. Snow, 1875.

211. 515. *Pinicola enucleator canadensis* (Cab.) Pine Grosbeak. A rare winter visitant. Inhabits the Hudsonian and Canadian zones of North America and the northern parts of the eastern hemisphere. South in winter through the transition zone, and casual in the upper austral zone. Snow, 1872, on authority of Doctor Brewer.

212. 517. *Carpodacus purpureus* (Gmel.) Purple Finch. A rare winter sojourner; common in eastern Kansas during migration. Inhabits eastern North America, north to Labrador and the Saskatchewan, west to the high plains; winters in the Southern states. Breeds in the transition zone and northward. Snow, 1872, on authority of Brewer.

213. 519. *Carpodacus mexicanus frontalis* (Say). House Finch. A rare resident. A specimen from a flock of fifteen was captured by Mr. H. W. Menke in Finney county, January 5, 1892. A western and southwestern species, which does not range far east of the foot-hills of the Rocky mountains, north to southern Wyoming, south into Mexico. Kellogg, 1894. Auk, vol. XI, p. 260.

214. 521. *Loxia curvirostra minor* (Brehm.) American Crossbill. A rare winter visitant; irregular. Widely distributed in North America, but chiefly east of the plains. Breeds in the transition zone and northward. Snow, 1872, on authority of Doctor Brewer.

215. 521a. *Loxia curvirostra stricklandi* (Ridgw.) Mexican Crossbill. Winter sojourner; irregular—some winters common. First taken at Lawrence, November 13, 1885, by Prof. L. L. Dyche. Taken also, during the same month, at Manhattan and Emporia. The geographical range of this subspecies includes Kansas, Colorado, New Mexico, Arizona, and the highlands of Mexico. Seen at Wallace, Kan., in July, by Prof. E. A. Popenoe. Dyche, 1886.

216. 522. *Loxia leucoptera* (Gmel.) White-winged Crossbill. A very rare winter visitant. Belongs to northern North America, breeding mostly in the boreal zones, but to some extent in the transition; south in winter to about latitude 38°. Snow, 1872, on authority of Brewer.

217. 528. *Acanthis linaria* (Linn.) Red-poll. A rare winter visitant. Seen at Neosho Falls in 1861 by Colonel Goss, and taken at Manhattan in 1881 by Dr.

C. P. Blachly. A far northern species, found in both hemispheres. In America it ranges south in winter into the northern and middle United States. Snow, 1875 (said to have been taken in Kansas by Mr. Trippe and by Professor Knox).

218. 529. *Astragalinus tristis* (Linn.) American Goldfinch. Resident; abundant in winter; common in summer. Belongs to the whole of temperate North America. Nests from southern Kansas northward. Maximilian, 1839.

219. 533. *Spinus pinus* (Wils.) Pine Siskin. An irregular winter sojourner; some winters abundant. Inhabits temperate North America. Breeds mainly in the transition zone. South in winter to the Gulf coast and the mountains of northern Mexico. Snow, 1872.

220. 534. *Passerina nivalis* (Linn.) Snowflake. A rare winter visitant. Inhabits northern North America, breeding in the arctic zone; south in winter to the northern United States; casually to Kansas and southern Illinois. Snow, 1872.

221. 536. *Calcarius lapponicus* (Linn.) Lapland Longspur. An abundant winter sojourner. Inhabits the arctic zone in summer; south in winter to about latitude 35°, chiefly east of the Rocky mountains. Baird, 1858.

222. 537. *Calcarius pectus* (Swains.) Smith's Longspur. A common winter sojourner in some parts of Kansas. Inhabits the interior of North America, breeding from northern Manitoba to the arctic coast, and passing southward in winter to Illinois and Texas. Snow, 1872, on authority of Baird.

223. 538. *Calcarius ornatus* (Townsend.) Chestnut-colored Longspur. Resident in middle and northwest Kansas; common. In winter common over the entire state. Breeds from our latitude on the plains northward to Saskatchewan; south in winter to the high plateaus of Mexico. Allen, 1872.

224. 539. *Rhynchophanes maccownii* (Lawr.) McCown's Longspur. A winter sojourner in the western half of the state; common; occasional further east. Inhabits the great plains, breeding from northern Nebraska and Wyoming northward to the Saskatchewan; south in winter into western Texas and Mexico. Allen, 1872.

225. 540. *Poecetes gramineus* (Gmel.) Vesper Sparrow. A rare summer resident; common in migration in eastern Kansas. Inhabits eastern North America north to Nova Scotia and the Saskatchewan, west to the plains. Breeds from Virginia, Kentucky and Kansas northward. Snow, 1872.

226. 542a. *Ammodramus sandwichensis savanna* (Wils.) Savanna Sparrow. Abundant in migration; sometimes winters in southeastern Kansas. Inhabits eastern North America, west to the plains, south in winter to the Gulf states. Breeds from about latitude 40° northward. Baird, 1858.

227. 542b. *Ammodramus sandwichensis alaudinus* (Bonap.) Western Savanna Sparrow. Migratory; not uncommon in the western part of the state. Probably breeds. A bird of western North America, east to Manitoba; south in winter to Mexico. Breeds from Colorado northward to the arctic. Reported breeding in western Texas (Lloyd). Goss, 1886. Taken by him in McPherson county, October 14, 1885.

228. 546. *Ammodramus savannarum passerinus* (Wils.) Grasshopper Sparrow. An abundant summer resident. Belongs to the eastern United States and southern Canada, west to the high plains; south in winter to the Gulf states, eastern Mexico, Cuba, etc. Baird, 1858.

229. 517. *Ammodramus henslowii* (Aud.) Henslow's Sparrow. A rare summer resident. Belongs to the eastern United States, north to southern New England and Ontario, west to the plains; winters in the southern United States. Baird, 1858. Taken by Professor Popenoe at Topeka, 1872.

230. 548. *Ammodramus leconteii* (Aud.) Leconte's Sparrow. A common migrant; occasionally winters in southern Kansas. A bird of the central plains, north to Manitoba; south in winter to Texas and the Gulf coast. Breeds from Dakota and Minnesota northward. First taken October 4, 1875, by W. H. Challis at Lawrence. Snow, 1875.

231. 549a. *Ammodramus nelsoni* (Allen). Nelson's Sparrow. A rare summer resident. A bird of the eastern United States, found chiefly in the interior. In migration it frequents the wet marsh lands of the Atlantic coast. Taken October 17, 1881, in McPherson county, by Colonel Goss. Allen, 1882, B. N. O. C., vol. VII, p. 55.

232. 552. *Chondestes grammacus* (Say). Lark Sparrow. An abundant summer resident. Inhabits the Mississippi valley, north to Manitoba, west to the plains, east to Indiana and Kentucky; south to the Gulf coast in winter. Baird, 1858.

233. 553. *Zonotrichia querula* (Nutt.) Harris's Sparrow. An abundant winter sojourner in eastern Kansas; rare in western Kansas. Ranges from the Mississippi river westward to the edge of the high plains, south to northern Texas, north to Manitoba, and northwest to the Rocky mountains. Breeding range not known. Taken by Audubon near Leavenworth in 1843. Baird, 1858.

234. 554. *Zonotrichia leucophrys* (Forst.) White-crowned Sparrow. Migratory; common. May rarely winter in southern Kansas. Ranges over the greater part of North America, breeding north and westward of the great lakes, and southward in the high mountain ranges of the great plateau. Winters in the Southern states and Mexico. Taken by Audubon near Leavenworth. Baird, 1858.

235. 554a. *Zonotrichia leucophrys intermedia* (Ridgw.) Intermediate Sparrow. Migratory; common. Migrates about two weeks later than *Z. leucophrys*. Belongs to western North America, from the plains to the Pacific, from Mexico to Alaska. Breeds in Alaska and the Mackenzie river basin, also southward in the mountains. First taken in the state at Manhattan, October 9, 1883, by D. E. Lantz; a few days later at Wallace, by Colonel Goss. Goss, 1884. Auk, vol. I, p. 100.

236. 558. *Zonotrichia albicollis* (Gmel.) White-throated Sparrow. A common migrant in eastern Kansas. Belongs to eastern temperate North America, breeding from the northern United States northward through the Canadian and Hudsonian zones, west to the plains, south to the Gulf coast. Noticed by Audubon near Leavenworth, 1843. Snow, 1872.

237. 559. *Spizella monticola* (Gmel.) Tree Sparrow. An abundant winter sojourner in eastern Kansas. Inhabits eastern North America, north to the edge of the arctic zone, west to the plains, south to the Gulf states. Breeds in the Canadian and Hudsonian zones. Baird, 1858.

238. 559a. *Spizella monticola ochracea* (Brewst.) Western Tree Sparrow. A winter sojourner in the western half of the state. Belongs to western North America. Ranges from Arizona and New Mexico to Alaska, breeding in the

northern part of its range and in the high mountains southward. Taken at Wallace, October 14, 1883, by Colonel Goss. Goss, 1887.

239. 560. *Spizella socialis* (Wils.) Chipping Sparrow. A common summer resident in eastern Kansas. A bird of eastern North America, west to the Rocky mountains, south to eastern Mexico. Breeds chiefly in the upper austral and transition zones. Snow, 1872.

240. 561. *Spizella pallida* (Swains.) Clay-colored Sparrow. Migratory; common throughout the state. Belongs to the interior of North America, from the Mississippi to the base of the Rocky mountains. Breeds from Dakota and Iowa northward to the Saskatchewan. Winters in Mexico. Coues, 1865.

241. 563. *Spizella pusilla* (Wils.) Field Sparrow. A common summer resident in eastern Kansas. Belongs to the eastern United States and southern Canada, west to the plains, south to the Gulf coast. Breeds throughout most of its range, but chiefly in the upper austral and transition zones. Baird, 1858.

242. 566. *Junco aikenii* (Ridgw.) White-winged Junco. A rare winter visitant in the western part of the state. A bird of the Rocky mountains in Colorado and Wyoming; casually east on the plains in winter to middle Kansas and Oklahoma. Taken November 8, 1875, at Ellis, by Doctor Watson. Snow, 1875.

243. 567. *Junco hyemalis* (Linn.) Slate-colored Junco. An abundant winter sojourner. A bird of northern North America; south in winter to the Gulf and casually west of the plains. Breeds from Maine northward to the edge of the arctic zone, and southward in the higher Appalachian mountains. Baird, 1858.

244. 567a. *Junco hyemalis oregonus* (Townsend.) Oregon Junco. A common winter sojourner. Belongs to the Pacific coast region, breeding from the higher mountains of southern California northward to Alaska. In winter it spreads eastward over the central part of the United States. Baird, 1858.

245. 578. *Peucaea cassinii* (Woodh.) Cassin's Sparrow. A summer resident over the western half of the state; rather common. Ranges from central Kansas southward and westward through Texas, New Mexico, and Arizona, into northern Mexico. Allen, 1872.

246. 581. *Melospiza fasciata* (Gmel.) Song Sparrow. A not uncommon winter sojourner; common in migration; rare in western Kansas. Belongs to the eastern United States and British America, west to the foot-hills of the Rocky mountains. Breeds from about latitude 41° northward and southward in the Allegheny mountains. Snow, 1872.

247. 583. *Melospiza lincolni* (Aud.) Lincoln's Sparrow. A common migrant. Observed in Kansas by Audubon, 1843. Ranges over all of North America. Breeds in the transition zone and boreal regions; south in winter to Panama. Baird, 1858.

248. 584. *Melospiza georgiana* (Lath.) Swamp Sparrow. A rare winter sojourner in southeastern Kansas. In migration, common in the eastern part of the state; rare westward. Belongs to eastern North America; north to the Hudsonian zone, west to the plains, south to the Gulf coast. Breeds chiefly in the transition and Canadian zones. Snow, 1872.

249. 585. *Passerella iliaca* (Merr.) Fox Sparrow. A common winter sojourner in eastern Kansas; rare westward. Inhabits eastern North America, north to the edge of the arctic zone, west to the plains and Alaska. Winters in

the central and southern United States. Breeds in the Canadian and Hudsonian zones. Snow, 1872.

250. 585c. *Passerella iliaca schistacea* (Baird). Slate-colored Sparrow. A rare winter visitant in western Kansas. Belongs to the Rocky mountains and great basin, north to British America. Snow, 1873.

251. 587. *Pipilo erythrophthalmus* (Linn.) Towhee. Resident in eastern Kansas. Common in summer and not rare in winter. Belongs to the eastern United States, west to the plains; south in winter to the Gulf coast. Breeds chiefly in the upper austral and transition zones. Abert, 1848.

252. 588. *Pipilo maculatus arcticus*. (Swains.) Arctic Towhee. A winter sojourner; not rare; common in migration. A bird of the plains, north to the Saskatchewan, west to the foot-hills, east to eastern Kansas and Nebraska; south in winter to Texas. Breeds from Dakota northward. Benson, 1874.

253. 593. *Cardinalis cardinalis* (Linn.) Cardinal. Resident; common in the timbered parts of the state. Belongs to the eastern United States; rare north of latitude 41°; west to the plains, south to Gulf coast. Breeds throughout its range. Maximilian, 1839.

254. 595. *Habia ludoviciana* (Linn.) Rose-breasted Grosbeak. Summer resident in eastern Kansas; common and increasing in numbers from year to year. A bird of eastern North America; north to Nova Scotia and the Saskatchewan, west to the plains, and south in winter nearly to the equator. Breeds in the upper austral, transition, and Canadian zones. Snow, 1872.

255. 596. *Habia melanocephala* (Swains.) Black-headed Grosbeak. A summer resident in the western half of the state; common. Inhabits the western United States, east to middle Nebraska, Kansas, and Texas; south in winter into Mexico. Breeds from the Mexican border northward. Allen, 1872.

256. 597. *Guiraca cærulea* (Linn.) Blue Grosbeak. A common summer resident in middle Kansas. A southern species, ranging in summer through the upper and lower austral zones, west to eastern Colorado and western Texas; south in winter to Cuba and southeastern Mexico. Breeds throughout its United States range. Snow, 1875, on authority of Doctor Watson, of Ellis.

257. 598. *Cyanospiza cyanea* (Linn.) Indigo Bunting. A common summer resident in eastern Kansas; rarer westward. Belongs to the eastern United States; north into Canada, west to the plains; south to Cuba, eastern Mexico, and Central America. Breeds chiefly in the upper austral and transition zones. Maximilian, 1839.

258. 599. *Cyanospiza amœna* (Say). Lazuli Bunting. A rare summer resident in western Kansas. Inhabits the western United States, east to the plains; south in winter into Mexico. Breeds throughout its range in the United States. Snow, 1872, on authority of Doctor Brewer.

259. 601. *Cyanospiza ciris* (Linn.) Painted Bunting. Summer resident in southern Kansas. Common in the gypsum hills and along timbered streams. Belongs to the south Atlantic and Gulf states; south in winter to Panama. Breeds chiefly in the lower austral zone. Taken by Colonel Goss in Comanche county, May, 1885, and reported by him in the Auk, vol. II, p. 274.

260. 604. *Spiza americana* (Gmel.) Dickcissel. An abundant summer resident in eastern Kansas; not common in the western part. Belongs to the eastern United States; north to New England and Dakota, west to the Rocky

Mountains, south to northern South America. Breeds chiefly north of the Gulf states. Baird, 1858.

261. 605. *Calamospiza melanocorys* (Stejn.) Lark Bunting. Summer resident; common in western Kansas. Found by Doctor Hoy near the eastern line of the state in 1854. A bird of the plains, from western Minnesota, middle Nebraska, Kansas, and Texas, west to the mountains. In winter, southwest to Mexico, Arizona, and southern California. Breeds from middle Kansas northward to southern Assiniboia. Hoy, 1864.

262. 607. *Piranga ludoviciana* (Wils.) Louisiana Tanager. A rare visitant to western Kansas during migration. Inhabits the western United States, from the high plains west to the Pacific; south to Mexico, in winter to Guatemala. Breeds in the mountains. Taken at the mouth of the Saline river by F. S. Benson, 1874; also taken in Finney county in 1893 by H. W. Menke. Benson, 1874.

263. 608. *Piranga erythromelas* (Vieill.) Scarlet Tanager. A common summer resident in the wooded parts of the state. Inhabits eastern North America, north to Canada and Manitoba, west to the plains; south in winter to the equator. Breeds throughout its United States range. Coues, 1871.

264. 610. *Piranga rubra* (Linn.) Summer Tanager. A summer resident; common in southeastern Kansas. Belongs to the eastern United States, north to latitude 40°; south in winter through eastern Mexico to northern South America. Breeds throughout its United States range. Snow, 1872, on authority of Baird.

265. 611. *Progne subis* (Linn.) Purple Martin. An abundant summer resident. Belongs to the whole of temperate North America; south in winter to southern Mexico. Breeds throughout the austral zones. Baird, 1858.

266. 612. *Petrochelidon lunifrons* (Say). Cliff Swallow. Summer resident; common in some localities. Ranges over nearly all of North America; south in winter to Brazil and Paraguay. Breeds from northern Mexico to the arctic zone. Snow, 1872.

267. 613. *Hirundo erythrogaster* (Bodd.) Barn Swallow. Summer resident; once rare, now abundant. Ranges North America in general, but breeds chiefly in the settled parts north of the Gulf states; south in winter to South America. Snow, 1872, on authority of Brewer.

268. 614. *Tachycineta bicolor* (Vieill.) Tree Swallow. A rare summer resident; common in migration. Ranges the whole of North America, wintering from the Gulf states southward to Panama. Breeds from Kentucky and Kansas northward to the arctic zone. Abert, 1848. Noticed by Audubon near Fort Leavenworth, 1843.

269. 616. *Clivicola riparia* (Linn.) Bank Swallow. An abundant summer resident. Inhabits the northern hemisphere; in America, south to the equator. Breeds in the United States and northward. Winters south of the United States. Fremont, 1845.

270. 617. *Stelgidopteryx serripennis* (Aud.) Rough-winged Swallow. A common summer resident. Inhabits the United States in summer, except the northern parts and much of New England; south in winter to Panama. Breeds chiefly in the two austral zones. Baird, 1858.

271. 618. *Ampelis garrulus* (Linn.) Bohemian Waxwing. A rare winter visitant. Belongs to the boreal regions of both hemispheres. Breeds in the far

north; wanders south in winter irregularly to the middle parts of the United States. Taken by Doctor Hammond, at Fort Riley; by Wm. Wheeler, at Ottawa, November, 1875; and three specimens from a large flock, by D. E. Lantz, at Manhattan, December 6, 1879. Baird, 1858.

272. 619. *Ampelis cedrorum* (Vieill.) Cedar Waxwing. Resident; rare. In migration irregular, but usually common. In summer it ranges over the greater part of North America; south in winter to Central America. Breeds throughout its summer range, but chiefly north of latitude 40°. Snow, 1872.

273. 621. *Lanius borealis* (Vieill.) Northern Shrike. A rather common winter sojourner throughout the state. Belongs to northern North America; south in winter to the middle United States. Snow, 1872.

274. 622. *Lanius ludovicianus* (Linn.) Loggerhead Shrike. A rare visitor from the south. The geographical range usually given to this species is Florida, the Carolinas, and the Gulf states east of Texas. Ridgway contends that it regularly occurs as far north as southern Illinois. The only record for Kansas is Snow, 1872, who says: "Several typical specimens of this southern form have been taken."

275. 622a. *Lanius ludovicianus excubitorides* (Swains.) White-rumped Shrike. Summer resident; common. Belongs to the central United States, north to Assiniboia; southwesterly to Lower California and the table-lands of Mexico. Rare east of the Alleghenies. Snow, 1872.

276. 624. *Vireo olivaceus* (Linn.) Red-eyed Vireo. Summer resident; common along our wooded streams. Belongs chiefly to the eastern part of the austral region, west to the Rocky mountains; south in winter to northern South America. Maximilian, 1839.

277. 627. *Vireo gilvus* (Vieill.) Warbling Vireo. Summer resident; common in eastern Kansas. Found along streams, in parks, orchards, and other plantations. Inhabits North America from Mexico to the Hudsonian zone, breeding from the lower austral zone northward. Coues, 1871.

278. 628. *Vireo flavifrons* (Vieill.) Yellow-throated Vireo. Summer resident in eastern Kansas; not so common as either of the two species already mentioned. A bird of the eastern United States and southern Ontario, west to the plains; south in winter to Costa Rica. Breeds from the southern edge of the lower austral zone northward through its range. Snow, 1872.

279. 629. *Vireo solitarius* (Wils.) Blue-headed Vireo. A rare migrant. Belongs to eastern North America, north to Hudson bay and Great Slave lake, west to the plains; south in winter to Guatemala. Breeds chiefly north of the United States. Snow, 1872, on authority of Baird.

280. 630. *Vireo atricapillus* (Woodh.) Black-capped Vireo. A common summer resident in the gypsum hills in southern Kansas. Inhabits the southern part of the great plains, north into southern Kansas; south in winter into Mexico. Taken in Comanche county, May 11, 1885, by Colonel Goss. Goss, 1885. Auk, vol. II, p. 274.

281. 631. *Vireo noveboracensis* (Gmel.) White-eyed Vireo. A common summer resident in eastern Kansas. Belongs to the eastern United States; west to the plains; south in winter to Guatemala. Resident in the Bermudas. Breeds throughout its United States range. Coues, 1871.

282. 633. *Vireo bellii* (Aud.) Bell's Vireo. An abundant summer resident. Inhabits the middle parts of the United States, from Illinois and Minnesota west to the foot-hills; south in winter to southern Mexico. Breeds from Texas northward in its range. Named after Bell, one of Audubon's hunters, who discovered it near Leavenworth in 1843. Baird, 1858.

283. 636. *Mniotilta varia* (Linn.) Black and White Warbler. Summer resident in eastern Kansas; rare; common in migration. Inhabits eastern North America, north to Hudson's Bay, west to the plains; south in winter to Central America. Breeds from the Gulf coast northward. Snow, 1872.

284. 637. *Protonotaria citrea* (Bodd.) Prothonotary Warbler. Summer resident; common along wooded streams in eastern Kansas. Belongs to the eastern United States, but chiefly to the Mississippi valley; north to Illinois, Iowa, and Nebraska, casually to Minnesota and Ontario; west to the plains; south to Cuba and Central America. Breeds throughout its United States range. Snow, 1872.

285. 639. *Helmitherus vermivorus* (Gmel.) Worm-eating Warbler. A rare summer resident in eastern Kansas. Belongs to the eastern United States; north through the upper austral zone, west to western Nebraska and Texas, south to the West Indies and Panama. Breeds in the upper and lower austral zones. Taken at Lawrence, May 6, 1873, by Miss Yeagley. Snow, 1874.

286. 641. *Helminthophila pinus* (Linn.) Blue-winged Warbler. Summer resident in eastern Kansas; rare; common in migration. Ranges through the eastern United States, north to New England, the Great Lakes, and Minnesota, west to middle Nebraska and Texas; south in winter to Guatemala. Breeds in the United States. Allen, 1872.

287. 645. *Helminthophila ruficapilla* (Wils.) Nashville Warbler. Migratory; not common. Belongs to eastern temperate North America, west to the great plains; south in winter to Guatemala. Breeds from the northern United States northward. Allen, 1872.

288. 646. *Helminthophila celata* (Say). Orange-crowned Warbler. A common migrant. Belongs to northern North America; rare in the northeastern United States; common in the Middle states and the Mississippi valley; winters in the Southern states and eastern Mexico. Breeds from Assiniboia northward to the arctic. Snow, 1872, on authority of Brewer.

289. 647. *Helminthophila peregrina* (Wils.) Tennessee Warbler. A common migrant in eastern Kansas. Belongs to eastern temperate North America, west to the foot-hills of the Rocky mountains; rare east of the Alleghenies; south in winter to northern South America. Breeds from the northern United States northward to Great Slave lake. Snow, 1872, on authority of Brewer.

290. 648. *Compsothlypis americana* (Linn.) Parula Warbler. A rare summer resident in eastern Kansas; common in migration. Inhabits eastern North America, north to Canada, west to the foot-hills; south in winter to Panama. Breeds from the Gulf states northward, chiefly north of latitude 40°. Allen, 1872.

291. 652. *Dendroica aestiva* (Gmel.) Yellow Warbler. Summer resident; abundant in the eastern part of the state, less common westward. Belongs to the whole of North America. Breeds from northern Mexico northward into the arctic zone. Winters south into South America. Baird, 1858.

292. 654. *Dendroica caerulescens* (Gmel.) Black-throated Blue Warbler. A rare migrant. Some doubt has existed as to the propriety of including this spe-

cies in Kansas lists. Snow included it in his second edition on authority of Baird. Goss omitted it from all the editions of his catalogue. Doctor Hoy found it near the Kansas line in western Missouri. In the absence of authentic earlier specimens, we have the record of its capture in Finney county, October 17, 1891, by H. W. Menke, so that there is a strong probability that the Baird record is correct. Snow, 1872, on authority of Baird.

293. 655. *Dendroica coronata* (Linn.) Myrtle Warbler. A rare winter sojourner; common in migration. Inhabits all of North America, but chiefly east of the Rocky mountains. Breeds from the northern United States northward to the arctic zone. Ranges from the middle United States southward to Panama in winter. Baird, 1858.

294. 656. *Dendroica auduboni* (Townsend) Audubon's Warbler. A rather common migrant in western Kansas. Inhabits western North America, north to British Columbia, east to central Kansas and Texas, south to Guatemala. Breeds in the mountains throughout its United States range. Goss, 1883. B. N. O. C., vol. VIII, p. 186.

295. 657. *Dendroica maculosa* (Gmel.) Magnolia Warbler. A rare migrant. Inhabits eastern North America, north to Hudson's bay, west to the foot-hills of the Rocky mountains; south in winter to Costa Rica and the West Indies. Breeds north of the United States. Taken in Marshall county by W. J. McLaughlin. Snow, 1874.

296. 658. *Dendroica cærulea* (Wils.) Cerulean Warbler. A common summer resident in eastern Kansas. Belongs to the eastern United States and southern Canada, west to the plains; south in winter to Panama. Breeds from the Gulf northward, chiefly in the interior. Allen, 1872.

297. 659. *Dendroica pennsylvanica* (Linn.) Chestnut-sided Warbler. A rare migrant. Belongs to eastern North America, north to Canada, west to the plains; south in winter to Panama. Breeds in the northern part of the upper austral and in the transition zones. Taken at Leavenworth, in May, 1871, by Prof. J. A. Allen, and at Topeka, May 2, 1873, by Prof. E. A. Popenoe. Snow, 1872, on authority of Brewer.

298. 661. *Dendroica striata* (Forst.) Black-poll Warbler. A common migrant. Belongs to eastern and northern North America, north to the arctic, west to the Rocky mountains and Alaska, south to Panama. Breeds from northern New England northward and westward. Snow, 1874.

299. 662. *Dendroica blackburniæ* (Gmel.) Blackburnian Warbler. A rare migrant. Belongs to eastern temperate North America, west to the plains, south to South America. Breeds from the northern United States northward to the Hudsonian zone. Allen, 1872.

300. 663a. *Dendroica dominica albilora* (Baird). Sycamore Warbler. A rare summer resident in eastern Kansas. Ranges through the Mississippi valley in summer, north to northern Illinois, west to eastern Kansas and Texas; south in winter to Guatemala. Breeding range not well known. Snow, 1872, on authority of Brewer.

301. 667. *Dendroica virens* (Gmel.) Black-throated Green Warbler. Migratory; not very common. Belongs to eastern temperate North America, west to the plains; south in winter to Panama. Breeds from the northern United States northward. Snow, 1872, on authority of Baird.

302. 671. *Dendroica vigorsii* (Aud.) Pine Warbler. A rare migrant. Ranges over eastern North America, north to Canada and Manitoba, west to the plains; south to the Gulf states, Bahamas, and Bermudas. Breeds nearly throughout its range. Goss, 1883.

303. 672. *Dendroica palmarum* (Gmel.) Palm Warbler. A rare migrant in eastern Kansas. Inhabits the interior of North America, north to Great Slave lake, east to the Alleghenies, south to the Gulf coast, west to the plains. Breeds north of the United States. Taken at Topeka, May 8, 1875, by Prof. E. A. Popenoe. Snow, 1875.

304. 673. *Dendroica discolor* (Vieill.) Prairie Warbler. A rare summer resident in eastern Kansas. Belongs to the eastern United States, north to southern New England and Michigan, west into Nebraska and Kansas, south to Florida and the West Indies. Breeds throughout its United States range. Allen, 1872.

305. 674. *Seiurus aurocapillus* (Linn.) Oven-bird. Summer resident in eastern Kansas; not rare. Common in migration. Inhabits eastern North America, north to Hudson bay and Alaska, west to the foot-hills of the Rocky mountains; south in winter to the West Indies and Central America. Breeds from southern Kansas and Virginia northward. Coues, 1871.

306. 675a. *Seiurus noveboracensis notabilis* (Grinn.) Grinnell's Water-thrush. A rare migrant. A bird of western North America, chiefly found in the interior, east into the Mississippi valley, north to the arctic regions; south in winter to Guatemala. Breeding range not known. Snow, 1872, on authority of Baird.

307. 676. *Seiurus motacilla* (Vieill.) Louisiana Water-thrush. A common summer resident in eastern Kansas. Inhabits the eastern United States, north to southern New England and Minnesota, west to the edge of the plains. Winters in the Gulf states, West Indies, Mexico, and Central America. Breeds throughout its United States range. Snow, 1872.

308. 677. *Geothlypis formosa* (Wils.) Kentucky Warbler. A common summer resident in eastern Kansas. Belongs to the eastern United States, mostly west of the Alleghenies, north to southern New England and Wisconsin, west to the plains; south in winter to the West Indies and Central America. Breeds in all its United States range. Baird, 1858.

309. 679. *Geothlypis philadelphia* (Wils.) Mourning Warbler. A rare migrant. Belongs to eastern North America, west to the plains; south in winter to Panama. Breeds in the transition zone and northward. Allen, 1872.

310. 681a. *Geothlypis trichas occidentalis* (Brewst.) Western Yellow-throat. A common summer resident in parts of the state. Belongs to the western United States, east to the Mississippi river, north to British America; south to Guatemala. Breeds in its United States range. Snow, 1872.

311. 683. *Icteria virens* (Linn.) Yellow breasted Chat. Summer resident in eastern Kansas; abundant. Belongs to the eastern United States, north to southern New England, Ontario, and Minnesota, west to the edge of the plains; south in winter to Guatemala. Breeds throughout its United States range. Baird, 1858.

312. 683a. *Icteria virens longicauda* (Lawr.) Long-tailed Chat. Summer resident in western Kansas; not uncommon. Inhabits the western United

States, east to the eastern edge of the great plains; south into Mexico. Breeds in its United States range. Taken by Dr. S. W. Williston, on the Smoky Hill river in western Kansas, May, 1877. Snow, 1878.

313. 684. *Wilsonia mitrata* (Gmel.) Hooded Warbler. Summer resident in eastern Kansas; not common. Habitat, the eastern United States, north to Connecticut, New York, and Iowa, west to eastern Nebraska, Kansas, and Texas; south to the West Indies and Central America. Breeds in its United States range. Maximilian, 1839. Also observed in Kansas by Audubon and Allen.

314. 685. *Wilsonia pusilla* (Wils.) Wilson's Warbler. A common migrant. Inhabits eastern and northern North America, north to Hudson bay and Alaska, west beyond the Rocky mountains; south in winter to Panama. Breeds from the northern United States northward, and southward along the high Rocky mountains. Snow, 1872, on authority of Brewer.

315. 686. *Wilsonia canadensis* (Linn.) Canadian Warbler. A rare migrant in eastern Kansas. Belongs to eastern North America, north to Newfoundland, southern Labrador, and Lake Winnipeg, west to Minnesota, eastern Nebraska, and Texas; south in winter nearly to the equator. Breeds from Wisconsin and Massachusetts northward. Goss, 1881.

316. 387. *Setophaga ruticilla* (Linn.) American Redstart. A common summer resident in eastern Kansas; abundant in migration. Range about the same as that of Wilson's warbler. Breeds from the Gulf states northward. Baird, 1858.

317. 697. *Anthus pensylvanicus* (Lath.) American Pipit. A common migrant. Inhabits all of North America. Breeds from Labrador to the arctic coast; also above timber line in the mountains. Winters from the Gulf states southward to Guatemala. Snow, 1872.

318. 700. *Anthus spragueii* (Aud.) Sprague's Pipit. Migratory; rare in eastern Kansas, common in the western part of the state. Belongs to the interior plains of North America, east to eastern Nebraska and Kansas, north to the Saskatchewan, south to southern Mexico. Breeds from central Dakota northward. Goss, 1883.

319. 703. *Mimus polyglottis* (Linn.) Mocking-bird. A common summer resident. Inhabits the United States, north to Massachusetts and southern Iowa. Breeds throughout its United States range. Retires southward in winter to southern Mexico. Abert, 1848.

320. 704. *Galeoscoptes carolinensis* (Linn.) Catbird. Summer resident; common. Abundant in the eastern part of the state. Inhabits eastern North America, north through the transition zone, west beyond the Rocky mountains, south to Panama. Breeds from the Gulf coast northward. Abert, 1848.

321. 705. *Harporhynchus rufus* (Linn.) Brown Thrasher. Summer resident; abundant. Its numbers in the west are limited by the sparseness of timber and other plantations; increasing. Has about the same summer range as the catbird. Winters from the Gulf coast northward to about latitude 37°. Abert, 1848.

322. 715. *Salpinctus obsoletus* (Say). Rock Wren. Summer resident in middle and western Kansas; not uncommon. Has been observed in Morris and Riley counties. Belongs to the arid regions of the western United States, north to British Columbia, east to middle Kansas and Texas; south through Mexico to

Guatemala. Breeds throughout its range. Taken in Rooks county, July 5, 1875, by E. A. Popenoe. Snow, 1875.

323. 718. *Thryothorus ludovicianus* (Lath.) Carolina Wren. Resident in eastern Kansas. Once abundant, but fast becoming rare. Belongs to the eastern United States, north to New England and Nebraska, west to the plains, south into northeastern Mexico. Breeds and winters nearly throughout its range. Baird, 1858.

324. 719. *Thryomanes bewickii* (Aud.) Bewick's Wren. A very rare summer resident. Belongs to the eastern United States, north to New Jersey and Minnesota, west to eastern Nebraska and Texas, wintering in the Southern states. Breeds throughout its range. Snow, 1872, on authority of Doctor Brewer.

325. 719b. *Thryomanes bewickii leucogaster* (Salv. and Godw.) Baird's Wren. Resident in middle southern Kansas; summer resident to the north line of the state. Belongs to the southwestern United States and northeastern Mexico. Breeds throughout its range. Goss, 1886.

326. 721b. *Troglodytes ædon aztecus* (Baird). Western House Wren. A common summer resident. Belongs to the western United States, except the Pacific coast, east to Illinois; south to Vera Cruz, Mexico. Breeds throughout its United States range. Snow, 1872.

327. 722. *Anothura hiemalis* (Vieill.) Winter Wren. A rare winter sojourner. Belongs to eastern North America, west to the Rocky mountains, south into the Gulf states. Breeds from the northern United States northward, and winters south of its breeding range. Snow, 1872, on authority of Baird.

328. 724. *Cistothorus stellaris* (Licht.) Short-billed Marsh Wren. A rare summer resident. Belongs to the eastern United States and southern Canada, west to the plains. Breeds chiefly north of the latitude of Kansas. Winters in the Gulf states. Snow, 1872.

329. 725. *Cistothorus palustris* (Wils.) Long-billed Marsh Wren. A rare summer resident; more common in migration. Belongs to temperate eastern North America, west to the Rocky mountains. Winters in the Gulf states. Breeds throughout its range. Snow, 1872.

330. 726. *Certhia familiaris fusca* (Barton). Brown Creeper. A common winter sojourner in wooded sections of Kansas. Belongs to eastern North America, west to the plains, south into the Gulf states. Breeds from the northern United States northward. Snow, 1872.

331. 727. *Sitta carolinensis* (Lath.) White-breasted Nuthatch. Resident; common in wooded parts of the state. Inhabits the eastern United States and southern British America, west to the Rocky mountains. Resident and breeding throughout its range. Baird, 1858.

332. 728. *Sitta canadensis* (Linn.) Red-breasted Nuthatch. A rare migrant; possibly a winter sojourner. Belongs in summer to the Hudsonian, Canadian and transition zones. Ranges in winter also over the upper and lower austral zones. Two specimens seen in twenty years at Manhattan. Snow, 1872, on authority of Baird.

333. 731. *Parus bicolor* (Linn.) Tufted Titmouse. Resident; abundant in wooded parts of the state. Inhabits the eastern United States, north to

Nebraska and New Jersey, west to the edge of the plains, south to the Gulf coast. Resident throughout this range. Baird, 1858.

334. 735. *Parus atricapillus* (Linn.) Chickadee. Resident; common in eastern Kansas. Inhabits eastern North America, north to the Arctic regions, west to the plains, south to Pennsylvania and southern Missouri. Resident throughout its range.

335. 735a. *Parus atricapillus septentrionalis* (Harris). Long-tailed Chickadee. Resident; common throughout the state where there is timber. In the eastern part the last form predominates; in middle Kansas this form is more common. Inhabits the Rocky Mountain region, north to the Hudsonian zone, west to the great basin, east into Missouri, south to New Mexico. Breeds throughout this range. Baird, 1858.

336. 748. *Regulus satrapa* (Licht.) Golden-crowned Kinglet. A rare winter sojourner; common in migration. Belongs to eastern and northern North America. Breeds from the extreme northern United States northward. Winters in the eastern United States and southward to Guatemala. Snow, 1892, on authority of Brewer.

337. 749. *Regulus calendula* (Linn.) Ruby-crowned Kinglet. An occasional winter sojourner; very common in migration. Ranges over nearly the whole of North America, north to the arctic coast, south to Guatemala. Breeds in the higher mountains from Arizona northward, and in boreal America. Snow, 1872.

338. 751. *Poliophtila cærulea* (Linn.) Blue-gray Gnatcatcher. A common summer resident in eastern Kansas; in migration found throughout the state. Inhabits the United States, chiefly south of about latitude 40°. Winters in the Gulf states and southward to Guatemala and the West Indies. Breeds from Cuba northward through its range. Baird, 1858.

339. 754. *Myiadestes townsendii* (Aud.) Townsend's Solitaire. An occasional fall and winter visitant from the west. Belongs to the mountain regions of the western United States, north to British Columbia, east to Dakota, Kansas, and Texas. Taken at Ellis, October 27, 1875, by Doctor Watson. Two records for Manhattan. Snow, 1875.

340. 755. *Hylocichla mustelina* (Gmel.) Wood Thrush. An abundant summer resident, rapidly extending its range westward as orchards and plantations increase. Belongs to the eastern United States, north to Massachusetts, Ontario, and Wisconsin, west to the plains; south in winter to Cuba and Guatemala. Breeds throughout its United States range. Snow, 1872.

341. 756. *Hylocichla fuscescens* (Steph.) Wilson's Thrush. A rare migrant in eastern Kansas. Belongs to the eastern United States and Canada; north to Newfoundland and Manitoba, west to the plains, south to the Gulf states and the West Indies. Breeds from about latitude 41° northward. Snow, 1872, on authority of Brewer.

342. 757. *Hylocichla aliciae* (Baird). Gray-cheeked Thrush. Migratory; not uncommon. Belongs to eastern and northern North America, west to the Rocky mountains, Alaska, and eastern Siberia. Winters south of the United States to Panama. Breeds chiefly in the Hudsonian and arctic zones. Goss, 1883.

343. 758a. *Hylocichla ustulata swainsonii* (Cab.) Olive-backed Thrush. A common migrant. Inhabits eastern North America, north to the arctic zone,

west to the western base of the Rocky mountains, and northwest to Alaska; south in winter to northern South America. Breeds north of the United States, except in the high mountains southward. Baird, 1858.

344. 759b. *Hylocichla unalaskæ pallasii* (Cab.) Hermit Thrush. Migratory; rare. Inhabits eastern North America, north to the arctic zone, west to the plains, south to the Gulf states. Breeds from the northern United States northward. Allen, 1872; also, Snow, 1872, on authority of Allen and Baird.

345. 761. *Merula migratoria* (Linn.) American Robin. Resident; abundant and increasing in numbers westward. Its abundance in winter seems to depend largely upon the food-supply: hackberries, grapes, moonseed, bittersweet, ampelopsis, and other berries. Belongs to the eastern and northern United States, west to the plains; south in winter to eastern Mexico. Breeds from the Gulf states northward to the arctic zone. Abert, 1848.

346. 761a. *Merula migratoria propinqua* (Ridgw.) Western Robin. An occasional visitant in western Kansas. Ranges over the western United States, north to British Columbia, east to western Kansas and Nebraska, south over the table-lands of Mexico. Breeds mostly north of Mexico. Taken by Colonel Goss at Wallace, October 12, 1883. Goss, 1884. Auk, vol. I, p. 100.

347. 763. *Hesperocichla nævia* (Gmel.) Varied Thrush. A rare visitant from the west. Ranges over western North America, from the Rocky mountains to the Pacific, and from the Yukon to the Colorado. Winters in the United States. Accidental in the Mississippi valley and the Atlantic states. Taken by H. W. Menke, October 17, 1891, in Finney county. Kellogg, 1894. A specimen in the museum of the State Agricultural College is probably erroneously labeled as from Kansas.

348. 766. *Sialia sialis* (Linn.) Bluebird. Resident in eastern and middle Kansas. A rare summer resident in western Kansas, decreasing in numbers. Inhabits the eastern United States and southern British America, west to the base of the Rocky mountains. Winters in the middle states and southward to Cuba. Breeds throughout its United States range. Abert, 1848.

349. 768. *Sialia artica* (Swains.) Mountain Bluebird. A common winter sojourner in western Kansas, rarer in eastern Kansas. Belongs to western North America, north to Great Slave lake, east to Dakota and Texas, south into Mexico. Breeds in the mountains. Taken by Doctor Watson at Ellis, October 26, 1875. Seen by the writer as far east as Vinland, Douglas county. Snow, 1875.

ADDITIONAL.

350. 416. *Antristomus carolinensis* (Linn.) Chuck-will's-widow. Very rare. Probable summer resident. On June 12, 1898, Dr. R. Matthews, of Wichita, found a specimen of this species on the Arkansas river several miles south of Wichita. There was no doubt of the identity of the specimen, which was submitted to Professor Snow for examination.

351. 283. *Arenaria interpres* (Linn.) Turnstone. Very rare in migration and summer visitant. The only record of its capture in Kansas was made by Mr. F. E. Forbes, of Topeka, who captured a fine male specimen on the Kansas river, August 16, 1898. He has the specimen in his collection.